

**Study on clarification of necessary factors to attract successful  
international conferences for regional revitalization**

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for regional revitalization

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## CHAPTER I INTRODUCTION

### 1.1 Background

Revitalization of local cities is one of the major issues of our country, and various actions are performed in terms of tourism. Economic ripple effect due to inbound which is increasing in recent years is expected. Not to mention the importance of Meeting / Incentive travel / Convention / Exhibition/Event (MICE) tourism showed by the Japan National Tourism Organization, in recent years, the importance of increasing the number of visitors to Japan by MICE has been recognized as for the traditional tourism industry [1]. MICE tourism is known to have a much greater economic effect than general tourism travel [2]. In particular, the international convention is attracting attention, because it can increase the economic ripple effect in the regional area of venue. According to the survey made by the Japan Tourism Agency, the economic ripple effect for total Japan by the international conference in FY2017 (FY2015, respectively) was announced to be about 678.9 (590.5) billion yen [3][34]. In addition, the average consumption per foreign participant of the international conference is estimated to be about 373,288 (260,000) yen, which is about 2.7 (1.6) times higher than the average traveling amount of 153,921 (156,000) yen for all foreigners visiting Japan.

Regarding the holding of international conventions, the organizer first plans two to three years before the opening time. What is important in planning is to raise the motivation of the participants and make them repeaters of the relevant international conference. Local cities (such as government, bureau, Destination Management Organization (DMO) etc.) wanting to invite international conferences propose their own venues and regional features to organizers. It is desirable that this content leads to the interest of the organizer and the satisfaction of participants, which are the keys to success of the invitation. In this paper, we conducted questionnaire surveys for interests and expectations concerning international conferences for multinational participants at the academic international convention held in Japan. Based on the survey results, we understand the interests and expectations concerning the conference venues and tourism of participants to the international conference to be held in Japan, and we clarify the difference depending on nationality. As a result, local cities will be able to design and develop unique venues that consider participants' expectations for attracting international conventions and can make effective proposals to organizers.

In this paper, we did not consider rating of an international conference or its academic level. Because, for local cities, the attraction of the international conference is the most important objective, and this is a matter that has priority than the rating and the level of

the conference. And the size of international conferences varies widely (from dozens to over 10,000 people), but the scale is neither considered. Because an international conference that can be attracted is limited by the size and scale of the venue facilities. For example, a venue / facility of 300 people will compete with facilities of the equivalent scale. Therefore, the purpose of this paper is to find out the factors and the conditions for creating an advantage in such a competitive environment.

## 1.2 Purpose of research

In order to attract an international conference, it is necessary to propose the "Value" that the city can provide to the organizers and participants, and for them to recognize and utilize this "Value." When an international conference is considered as a "Product / Service," the following four points of view may constitute its "Value." A similar idea has been reported in the MICE International Competitiveness Enhancement Committee of Japan National Tourism Organization [4] [5], and the author agrees with this way of thinking.

The first point is the "Logistics" perspective that includes Venue, Access, Environment, and Conference Management Skills, etc. In this paper, we studied mainly "Venue" and "Access" by analyzing the results of questionnaire to the participants in the international conference and international conference performance data. As the number of participants in the international conference is usually over a hundred, it is currently considered appropriate to hold the conference in a government-designated city or prefectural capital, considering the conference venue and accommodation facilities. Therefore, in this paper, the targets are limited to these cities. Since the targets are these local cities, questionnaire surveys were conducted in several local cities.

The second one is from the viewpoint of "Enhancing conference programs and participant experience," such as Opportunity to share high quality knowledge, networking opportunities, and presentation opportunities. This was clarified what is expectation for the conference by analyzing the results of questionnaires for participants in international conferences.

The third one is from the perspective of "Hospitality / Tourism," which considers Tourism resources, Products, Excursions, and unique programs, etc. This point was studied by analyzing the review data on internet.

The fourth one is "New value for organizers and participants." In order for local cities to win in competition with other cities, differentiated proposals are needed. The organizer's interest is to increase the number of participants and new revenue sources. So, it is important to provide the services expected by individual participants. To that

end, it was studied to clarify differences in the attributes, such as "Nationality" and "Gender" of the participants by analyzing the results of questionnaire to the participants in the international conference.

From "Organizer" point of view, one of the important success conditions of an international conference is to gather enough "Participants" at the conference. And it is also important to raise the satisfaction of "Participants" through the conference experience. Therefore, it is important for cities who want to attract an international conference to propose attractive "Products and Services" that worthy from the perspective of the organizer. The results of these analyzes could be used to suggest more competitive proposals, aiming to improve marketing capabilities in local cities.

### 1.3. Structure of this thesis

The structure of this paper is as follows.

Chapter I described Introduction of this paper, including "Revitalization of local cities by attracting international conventions," "Purpose of research," and "Structure of this thesis."

Chapter II describes the results of related work. Related works are mentioned in two sessions, which are research on the conference itself and research on data analysis.

In Chapter III, from the viewpoint of "logistics" (place / venue), we perform two analysis. In Section 1, the expectations of international conference participants are analyzed by questionnaire survey. In Section 2, we analyze the performance data of international conferences held in Japan in 2017, in order to explore the related factors between participants, cities, and venues.

In Chapter IV, from the viewpoint of "Conference programs and Participant experience," participants' expectations regarding conference programs are analyzed by questionnaire survey.

In Chapter V, from the viewpoint of "Hospitality / Tourism," we collect and analyze related reviews on the Internet to clarify the consciousness of foreign visitors to Japan.

In Chapter VI, from the viewpoint of "New value for organizers and participants," we analyze the expectation due to differences in attributes such as a nationality and a gender of the participants. From this analysis result, there is a possibility of better service proposal by understanding the expectation of the participants due to the difference in attributes. That could lead to increased participants and improved

revenue.

In Chapter VII, the analysis results from Chapter III to Chapter VI are summarized, and the conclusion of this paper and future tasks are described.



## CHAPTER II RELATED WORK

### 2.1 Study for Convention

A lot of related work are presented in literatures. In existing research, convention attendees' perceptions from both small and large event planners in United States are analyzed and discussed.

Oppermann conducted a questionnaire survey and clarified 15 decision criteria [6] – [8]. The respondents considered that the quality of the meeting room facilities and the service of the hotel was the top explained the participant's decision-making model to the conference by four elements (1. Individual and business factors, 2. Factors of association and conference, 3. Factor of place, 4. Intervention opportunity etc.) [7]. Also, the contribution analyzed the importance of four factors including facilities, cost, image / recreation, and general location. In this contribution, the destination image is discussed [8]. Zhang *et al.* modified and detailed Oppermann's model. This study did not discuss only literature review from existing work and conducted experimentations for convention attendees and questionnaire-based investigations in the contributions [9].

Severt *et al.* investigated motivations and satisfactions of convention attendees to participate in national events in United States [10]. Wu and Weber also investigated convention participants' perceptions of about motivation of participation by analyzing the importance of select venue facilities, attributes and services [11]. Yoo and Chon investigated, as well as Weber's contribution, convention participation decision-making with five dimensions: (a) destination stimuli, (b) professional and social networking opportunities, (c) educational opportunities, (d) safety and health situation, and (e) travel ability [12].

Kim *et al.* focused on a satisfaction surveys related to food and beverages offered at conventions. This study argued that food and beverages were important in commercial conventions in terms of customer retention. However, in academic conventions, many conventions are planned and implemented by non-profit organizations, and it is not realistic to realize the retention of participants through food and beverages due to budget constraints compared to commercial conventions [13].

Choi investigated attendees' satisfaction in conventions using eight factors: price, quality of sleeping rooms, hotel personnel, overall affordability of destination, quality of meeting rooms, inventory, location, and quality of convenient services [14]. Breiter *et al.* investigated convention facility and its services based on importance-performance-gap [15].

Tanford revealed important factors of attendance motivation, satisfaction and loyalty

of participants [16]. Rittichainuwat *et al.* investigated the motives, impediments, and facilitation factors for convention participants. This study revealed that participants' motivation to participate in the convention is related to factors which are tourism, self-growth, business, and activities provided by the organizer. It was also showed that the convention itself, personal constraints, distance to the convention venue, time constraints, and monetary constraints create factors that reduce the motivation for participating in the convention. It was clarified that the driving factors to increase motivation are related to the less expensive cost of participation and travel, having sufficient time for travel and convention attend, the support of families, and easy access to the convention venues [17].

DiPietro *et al.* investigated the differences in the decision-making process involved in selecting a convention venue for meeting planners and exhibition planners. Meeting planners and exhibition planners have decided that venues would be decided based on predictions regarding the success of the event [18].

Bongkosh Ngamsom *et al.* examined motivation, inhibitors, and facilitators of association members in attending international conferences held in Hong Kong by using questionnaire survey and revealed that important factors (opportunities for travel to overseas destinations, outdoor recreation, business or political activities, etc.) which motivated the respondents in attending international conferences. Perceived risks of safety, inconvenience, and unfamiliarity with overseas destinations inhibit people from attending conferences [19].

Denver Severt *et al.* assessed convention attendee motivations, performance evaluation, satisfaction, and behavioral intentions in a regional conference setting by using data collected from conference attendees in the southeast United States [20].

Bauer *et al.* performed a survey on the motivation and satisfaction of participants in the event, at the international convention ITU Telecom World 2006 held in Hong Kong in 2006. This survey clarified that the event organizers decided on a strategy to implement events that meet to the expectations of the participants [21]. However, this research targeted large-scale conventions in the industrial field. It does not provide knowledge about participants' motivation and satisfaction at international academic conventions.

Matsuo *et al.* investigated a difference of motivation and satisfaction between student attendees and non-student attendees in conventions [22]. However, these contributions did not discuss improvement of event and conventions using a certain invented method. And, they did not suggest about a knowledge on business and service model.

Malekmohammad *et al.* performed questionnaire survey for the motivations for the

decision of conference attendees to participate in an international conference in Singapore. The findings revealed that there were four dimensions of conference motivations: professional and prestige, pleasure seeking, destination factors, and conference factors [23].

Ann Wu and Karin Weber assessed convention delegates' perceptions of the importance of select venue facilities, attributes and services, as convention center present an important consideration in meeting planners' site selection process [24].

Judith Mair examined a sample (n=500) of conference delegates in Australia and the United Kingdom and uses cluster analysis to profile them on their motivations. Because, research into conference delegate motivations is scarce, and profiling of conference delegates using their motivations and demographic characteristics has seldom been undertaken [25].

## 2.2 Study for data analysis

The sending and spreading of information via the Internet is effective for advertisements. It is widely known that it is used as marketing information by collecting and analyzing user reviews. This kind of study is conducted all the world. Schuckert *et al.* mentioned that online comments were essential to tourism [26]. Travelers can directly comment on their travel experience through the Internet, so these comments on the Internet can be one of the important factors for future travelers [26].

Chloe K. H. Lau *et al.* revealed that the Web has considerable (but as yet largely untapped) potential to facilitate linkages between MICE and local economies [27].

Beverley A. Sparks *et al.* mentioned that a growing reliance on the Internet as an information source when making choices about tourism products raised the need for more research into electronic word of mouth [28].

Xu *et al.* explained that big data had been used for analysis of travelers' comments. Analytical method such as text mining is useful for collecting data from the Internet [29].

Hsiao *et al.* identified important factors to develop guidelines for hotel services by using text mining. Text mining was applied to extract important words of service characteristics. They extracted travelers' online comments on twenty international hotels in Taipei and summarized 10 service characteristics. They described that facility was an important factor to develop hotel service [30]. This study also showed one of the examples that text mining was a useful tool to extract travelers' comments.

Therefore, in this research, as effective knowledge for inbound marketing, we analyze multilingual reviews on the Internet and clarify features and differences by nationality. Also in Japan, analysis and research on foreign traveler reviews and blog data by text

mining and statistical methods are being conducted. These are useful for inbound business.

Sugitani pointed out the usefulness of reviews on the Internet "the effect of nonverbal clues in product evaluation" [31]. Okubo showed a method for analyzing the language contents and extracting useful plan information for travel guide books and review sites [32]. Tanabe revealed that useful analysis can be obtained from the review analysis of the guests posted on the reservation site regarding strategy development of accommodation facilities [33].

## CHAPTER III

### ANALYSIS OF PARTICIPANTS' EXPECTATIONS REGARDING LOGISTICS (LOCATION/VENUE)

#### Section 1

#### Interest and Expectation Analysis of International Convention Participants to the International Conference

##### 3.1.1 Introduction

As described in 1.1, revitalization of local cities is one of the major issues of our country, and various actions are performed in terms of tourism. Economic ripple effect due to inbound which is increasing in recent years is expected. In particular, the international convention is attracting attention as one of inbound business because it can increase the economic ripple effect of the venue. What is important in planning is to raise the participants' motivation and to make them repeaters of the relevant international conference. Local cities (such as government, bureau, Domestic Marketing Organization (DMO) etc.) wanting to invite international conferences propose their own venues and regional features to organizers. This content is desirable to lead to the interest of the organizer and the satisfaction of participants, which is the key to success of the invitation. In this section, a questionnaire survey for interests and expectations concerning international conferences for multinational participants at the academic international convention held in Japan is conducted. From the survey results, the interests and expectations concerning the conference venues and tourism of participants to the international conference to be held in Japan could be understood, and the difference depending on nationality could be clarified.

##### Preliminary Discussion

###### 3.1.1.1 Inbound Tourism in Convention Business

Most of international conventions contribute to increase inbound tourists attending the international event. In comparison of economic effects between general sightseeing tourism and convention tourism, convention business creates approximately 7-8 times effects from general sightseeing tourism [35][36]. Delegates who participate in the convention stay longer than pleasure travelers [37]. Most of countries emphasize the increase of the number of conventions held in their courtiers. In convention business, there a lot of expenses including social functions, publication, facility rental costs, excursion, and several others. Conventions normally have welcome reception, farewell reception, dinner banquet, VIP banquet, and coffee breaks as social functions. These expenses help local economy where the convention is held. For local government, it is important to understand what kind of travel resources are

popular by visitors. These are related with local investment on tourism. For example, even though the local city has a big shopping center besides the station, it should not be invested any more if visitors do not come by and purchase anything.

### 3.1.2 Survey

#### 3.1.2.1 Target

In order to clarify the expectations and needs concerning "international conference" and "tourism in Japan" of participants of international conferences held in Japan, we conducted a survey of participants of the international conference held in Hamamatsu, Shizuoka in July 2017. For the questionnaire survey, participants handed out a questionnaire survey paper at the time of check-in at the venue and collected them during the conference period.

#### 3.1.2.2 Questionnaire

The questionnaire consisted of five parts. The first three parts were about the experience of participating international conventions, and the questions were divided into past, present, and future. The questionnaire is about "Participating International Convention" as Part 1, "This International Convention" as Part 2, and "International Convention to be held in Japan in the future" as Part 3. In each part, a) social event, b) meeting facility, c) meeting attendance purpose, d) tourism, and e) questions about the host city were considered. Depending on the nature of the question, the answer method may be one choice or multiple choices from different choices. Or, for measurement of degree, one choice was made from 5 steps (1: Less important/less agree < 2 < 3: Neutral < 4 < 5: Very important / most agree). In Part 4, as a question only for foreign participants, he/she choose one from 5 levels of choices about expectations and interests in Japan visit. Finally, in Part 5, we asked questions about the participants themselves. Tables 1 to 5 show the question items and answer options in Parts 1 to 5, respectively. The questions shown in Table 1 are concerned with experience about the attendance of international conference. The questions shown in Table 2 are concerned with itinerary of the trip from leaving home, until returning to home for each attendee. The questions shown in Table 3 are concerned with attendees' perception of attending the conference held in Japan. Table 4 also asks about attendees' perceptions about the conference where answerers are attending. Table 5 shows the question items about answerer's personal information.

Table 1: Question items in Part 1

| #  | Question items   | Answer items  |
|----|--|---|
| Q1 | How many times have you ever attended the international conference?  | 1. 0 time<br>2. 1-10 times<br>3. 11-20 times<br>4. 21-30 times<br>5. 31 times or more   |
| Q2 | How many times have you ever attended the international conference held in Japan?  | 1. 0 time<br>2. 1-10 times<br>3. 11-20 times<br>4. 21-30 times<br>5. 31 times or more   |
| Q3 | What kind of social event do you expect? (Multiple answers allowed)  | 1. Banquet (dinner party)<br>2. Welcome Reception Party<br>3. Farewell Reception Party<br>4. Coffee Break<br>5. Excursion<br>6. Attraction (traditional dance show, etc.) |
| Q4 | Various venues are used as facilities for international conferences, what kind of facilities are you interested in? (Multiple answers allowed) | 1. Modern conference hall<br>2. Museums, museums<br>3. Historic buildings<br>4. Shrines / Temples / Churches<br>5. Hotels<br>6. Other ( )                                 |
| Q5 | Are there any venues left in your impression at the international conferences you have attended so far?  | 1. Yes<br>(City: )<br>2. No<br>3. do not know   |
| Q6 | To whom person who answered "1. Yes" with the above Q5. What kind of facilities are left in your impression?                                   | 1. Modern conference hall<br>2. Museums, museums<br>3. Historic buildings<br>4. Shrines / Temples / Churches<br>5. Hotels<br>6. Other ( )                                 |

Table 2: Question items in Part 2

| #   | Question items  | Answer items  |
|-----|---|---|
| Q7  | What is the purpose of attending this international conference?<br>(Multiple answers allowed)       | <ol style="list-style-type: none"> <li>1. Educational purpose</li> <li>2. Opportunities for Networking</li> <li>3. Job opportunities</li> <li>4. Interesting conference programs</li> <li>5. Career development</li> <li>6. Personal development</li> <li>7. Association related activities</li> <li>8. Visiting friends and relatives</li> <li>9. Escape from routine</li> <li>10. Conference committee requested you to attend the conference</li> </ol>  |
| Q8  | What kind of events do you expect from this international conference?<br>(Multiple answers allowed) | <ol style="list-style-type: none"> <li>1. Banquet (dinner party)</li> <li>2. Welcome Reception Party</li> <li>3. Farewell Reception Party</li> <li>4. Coffee Break</li> <li>5. Excursion</li> <li>6. Attraction (traditional dance show, etc.)</li> </ol>   |
| Q9  | What is your expectation for a dinner party? (Choose one)   | <ol style="list-style-type: none"> <li>1. Least Strong</li> <li>2. Less strong</li> <li>3. Neutral</li> <li>4. More Strong</li> <li>5. Most Strong</li> </ol>   |
| Q10 | Do you have a plan to have sightseeing during this itinerary?<br>(Choose one)                       | <ol style="list-style-type: none"> <li>1. Yes (Sightseeing plan: )</li> <li>2. No</li> </ol>  |
| Q11 | What are you interested in the tourism resources in Japan?<br>(Multiple answers allowed)            | <ol style="list-style-type: none"> <li>1. Japanese food</li> <li>2. Shopping</li> <li>3. City walk</li> <li>4. Nature</li> <li>5. Beautiful Scene</li> <li>6. Japanese Traditional Hotel</li> <li>7. Hot spring bath</li> <li>8. History</li> <li>9. Japan's lifestyle</li> <li>10. Museum</li> <li>11. Theme park</li> <li>12. Night life</li> <li>13. Japanese traditional art show</li> <li>14. Manga/Anime</li> <li>15. Watching Sports (Sumo, Baseball, Soccer etc.)</li> <li>16. Golfing</li> <li>17. Skiing</li> <li>18. Others ( )</li> </ol> |



Table 3: Question items in Part 3

| #   | Question items  | Answer items  |
|-----|---|---|
| Q12 | Allowable travel time from the airport / port of Japan to the venue (Choose one)                                  | <ol style="list-style-type: none"> <li>1. 1 hours</li> <li>2. 1 to 2 hours</li> <li>3. 2 to 3 hours</li> <li>4. 3 to 4 hours</li> <li>5. 4 hours or more</li> </ol>   |
| Q13 | What kind of venue do you expect for the international conference to be held in Japan? (Multiple answers allowed) | <ol style="list-style-type: none"> <li>1. Modern conference hall</li> <li>2. Art/ museums</li> <li>3. Historic buildings</li> <li>4. Shrines / Temples / Churches</li> <li>5. Hotels</li> <li>6. Other ( )</li> </ol>   |
| Q14 | Are you interested in international conferences held in local cities other than Tokyo, Osaka and Nagoya in Japan? | <ol style="list-style-type: none"> <li>1. Least Strong</li> <li>2. Less strong</li> <li>3. Neutral</li> <li>4. More Strong</li> <li>5. Most Strong</li> </ol>   |
| Q15 | What do you expect for an international conference in a local city?   | <ol style="list-style-type: none"> <li>1. Japanese food</li> <li>2. Shopping</li> <li>3. City walk</li> <li>4. Nature</li> <li>5. Beautiful Scene</li> <li>6. Japanese Traditional Hotel</li> <li>7. Hot spring bath</li> <li>8. History</li> <li>9. Japan's lifestyle</li> <li>10. Museum</li> <li>11. Theme park</li> <li>12. Night life</li> <li>13. Japanese traditional art show</li> <li>14. Manga/Anime</li> <li>15. Watching Sports (Sumo, Baseball, Soccer etc.)</li> <li>16. Golfing</li> <li>17. Skiing</li> <li>18. Others ( )</li> </ol> |

Table 4: Question items in Part 4

| #   | Question items  |
|-----|---|
| Q16 | Do you want to visit Japan for your sightseeing travel?   |
| Q17 | Do you want to visit Japan to attend an international conference?                                       |
| Q18 | Convenient transportation availability to Japan is important for you to travel to the conference venue. |
| Q19 | How is the convenience of travel from your country to Japan?  |
| Q20 | What do you want to experience to eat Japanese food during your stay in Japan?                          |
| Q21 | Do you expect to buy good Japanese traditional souvenir?  |
| Q22 | Do you want to make a time to have sightseeing in Japan after/before the conference?                    |
| Q23 | Do you want to visit local city in Japan after/before the conference?                                   |
| Q24 | How do you think the importance of cost of sightseeing in Japan?  |
| Q25 | Do you expect a dinner party in international conference held in Japan?                                 |

Table 5: Question items in Part 5

| #   | Question items | Answer items  |
|-----|----------------|---|
| Q26 | Age            | 1. 20's 2. 30's 3. 40's 4. 50's<br>5. 60's 6. 70's and over   |
| Q27 | Gender         | 1. Female 2. Male 3. Other  |
| Q28 | Nationality    | Nationality : ( )   |
| Q29 | Occupation     | 1. Company Director<br>2. Company Manager<br>3. Company Employee<br>4. Company Temporary employee<br>5. Assistant Professor<br>6. Lecturer<br>7. Associate professor<br>8. Full Professor<br>9. School Officer<br>10. Graduate Student<br>11. Undergraduate Student<br>12. Others ( ) |
| Q30 | Annual income  | 1. US\$10,000 or less<br>2. US\$10,000-30,000<br>3. US\$30,000-50,000<br>4. US\$50,000-100,000<br>5. US\$100,000 or over  |

### 3.1.3 Interest and expectation for convention venue

#### 3.1.3.1 Purpose

To learn the expectations of participants can help local cities, when they would plan venue development and proposals to organizers. Local cities, even if they are far from the airport, will be able to use this knowledge to win competitors and succeed in attracting international conference. In addition, they investigate the expectations for foreign tourists' sightseeing to make it easier for local cities to consider planning, development, and proposal of their own tourism resources.

#### 3.1.3.2 Respondent attribute

Questionnaires were answered by 77 participants from 11 countries. Ages of respondents were 26% in 20's, 31% in 30's, 30% in 40's, 6% in 50's, 4% in 60's, and 3% in no answer as shown in Table 6. Respondents were 79% male, 18% female, and 3% unanswered as shown in Table 7. Table 8 shows answerers' nationality and percentages of countries. About 90% of occupations were university officials (professors, associate professors, assistant professors, lecturers, graduate students, etc.) as shown in Table 9.

Table 6: Age Distribution

| Age          | Number of answerers |
|--------------|---------------------|
| 20s          | 26%                 |
| 30s          | 31%                 |
| 40s          | 30%                 |
| 50s          | 6%                  |
| 60s and over | 4%                  |
| Unanswered   | 3%                  |

Table 7: Gender Distribution

| Sex        | Number of answerers |
|------------|---------------------|
| Female     | 18%                 |
| Male       | 79%                 |
| Unanswered | 3%                  |

Table 8: Nationality Distribution

| Countries  | Number of answerers |
|------------|---------------------|
| China      | 12%                 |
| Croatia    | 1%                  |
| Danish     | 1%                  |
| Indonesia  | 3%                  |
| Japan      | 45%                 |
| Korea      | 3%                  |
| Madagascar | 1%                  |
| Slovenia   | 1%                  |
| Taiwan     | 21%                 |
| Thailand   | 7%                  |
| USA        | 1%                  |
| Unanswered | 4%                  |

Table 9: Occupation Distribution

| Occupations           | Number of answerers |
|-----------------------|---------------------|
| Full professor        | 17%                 |
| Associate professor   | 18%                 |
| Assistant professor   | 8%                  |
| Lecturer              | 8%                  |
| Graduate Student      | 26%                 |
| Staff                 | 4%                  |
| Undergraduate student | 1%                  |
| Director              | 1%                  |
| Manager               | 3%                  |
| Employee              | 3%                  |
| Part-time employee    | 1%                  |
| Others                | 2%                  |
| Unanswered            | 8%                  |

### 3.1.3.3 Expectation of international convention participants to the venue

In response to "the venue expected at the international conference held in Japan", as shown in Figure 1, the expectation for "modern conference hall" (40/77) is the highest. "Historic building" (28/77) and "Art/Museum" (21/77) follow it. Also, "Shrines and temples" (7/77) tended to be less expected. On the other hand, as shown in Table 10, for access from the airport to the venue, the allowable travel time from the airport occupied 72% of the whole with "0-1 hours" and "1-2 hours." From these observations, we could read the preferences of "efficient and reasonable" participants who wish "short travel time" and "modern venue." Furthermore, in the result of the cross analysis of "Expected venue" and "Allowed travel time" (Table 11), 50% of participants wishing "0-1 hours" wish "modern venue." And 47% of participants accepting "1-3 hours" were expecting "Art/Museum" and "Historical building." A traveling time from the airport of "1 to 3 hours" means that it is possible to travel over 200 km if using a highway. Even in local

cities with a certain distance from the airport, it was suggested that proposals with "Art/Museums" and "historic buildings" as venues could be accepted positively for participants. Figure 2 is a diagram mapping the movable range according to the allowable movement time. Because the whole of Japan is not covered by the permissible travel time of participants, it is desirable to improve the public transportation system and access to the local routes by air route from the hub airport and improve the transit time in order to further utilize the local venues in the future.

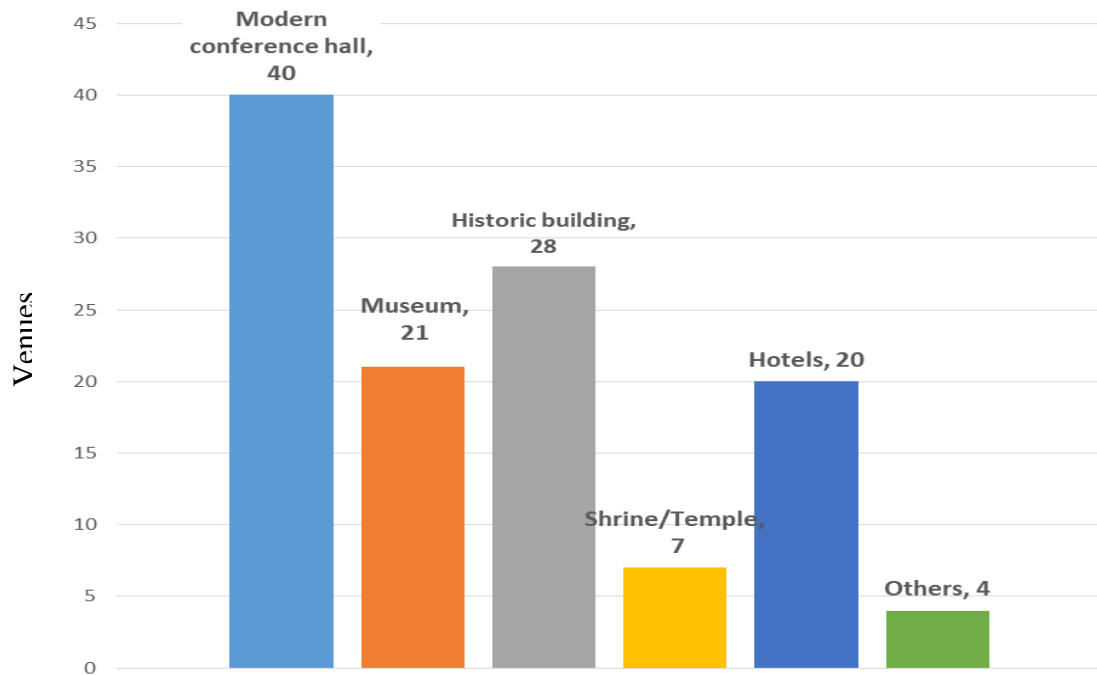


Figure 1 : Expected conference venue

Table 10: Allowable travel time from the airport

| Hours           | Number of answerers |
|-----------------|---------------------|
| 0-1 hour        | 28%                 |
| 1-2 hours       | 43%                 |
| 2-3 hours       | 21%                 |
| 3-4 hours       | 4%                  |
| 4 hours or more | 3%                  |
| Unanswered      | 1%                  |

Table 11: Expected venue and allowable travel time

| Question items         | 0-1 hour | 1-3 hours |
|------------------------|----------|-----------|
| Modern conference hall | 50%      | 27.7%     |
| Art/Museum             | 3.6%     | 21.6%     |
| Historical building    | 17.8%    | 25.3%     |
| Shrines/Temples        | 7.1%     | 4.8%      |
| Hotel                  | 10.7%    | 19.3%     |
| Others                 | 10.7%    | 1.2%      |

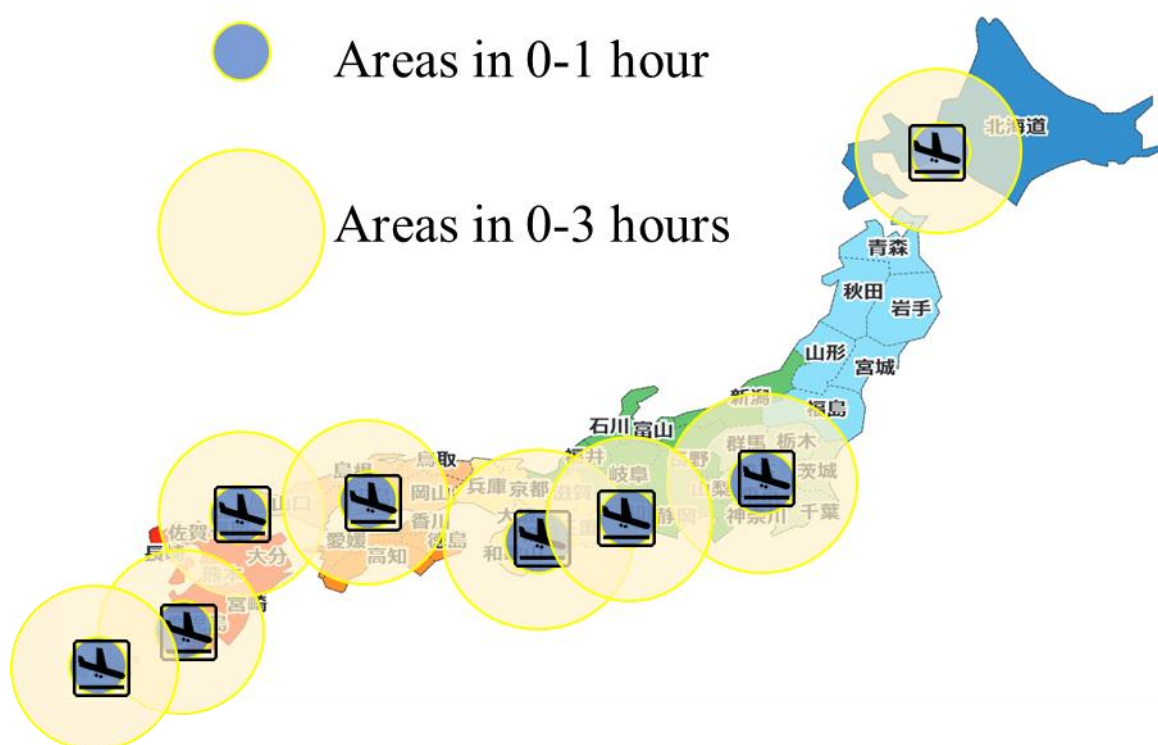


Figure 2: Major airports and allowable travel areas

### 3.1.3.4 Expectation of foreign participants for sightseeing in Japan

For the foreign participants, the percentage of those having "present" sightseeing schedule was 64% of the total, and 100% of participants from "distant Europe, US and Africa" in particular, as shown in Tables 12 and 13. On the other hand, for participants from "Asia," it was 44%, which is fewer than participants from "Europe, US and Africa." However, when examining "Asia" for each nationality, the tendency varies. 75% of participants from "Taiwan" and 66.7% of participants from "China" had plan of sightseeing. Figure 3 shows the concerning the specific interest in Japan tourism resources, "Japanese food," "shopping," "beautiful scene," "nature," "history" etc. are on

top, while expectations for "Japanese traditional hotel," "hot spring" were not highly appreciated. It was considered that tourism services that many Japanese think value is not always highly appreciated by foreigners. As for "shopping," which consumed a large amount of money, "Europe, US, and Africa" tended to have lower willingness to shop than "China" and "Asia" as shown in Table 14. Based on these results, opportunities to increase local consumption could be expanded by proposing sightseeing and particular services during the conference period or before/after the conference. Regarding the content of proposals for tourism and services, planning and proposals based on the needs of foreign visitors to Japan are considered to be effective.

Table 12: Sightseeing plan of foreign participants

| Answers    | Number of answerers |
|------------|---------------------|
| Yes        | 64%                 |
| No         | 33%                 |
| Unanswered | 3%                  |

Table 13: Sightseeing plan and participant nationality

| Answers | Asia | America/Africa | Taiwan | China | Others |
|---------|------|----------------|--------|-------|--------|
| Yes     | 44%  | 100%           | 75%    | 67%   | 67%    |
| No      | 56%  | 0%             | 25%    | 33%   | 33%    |

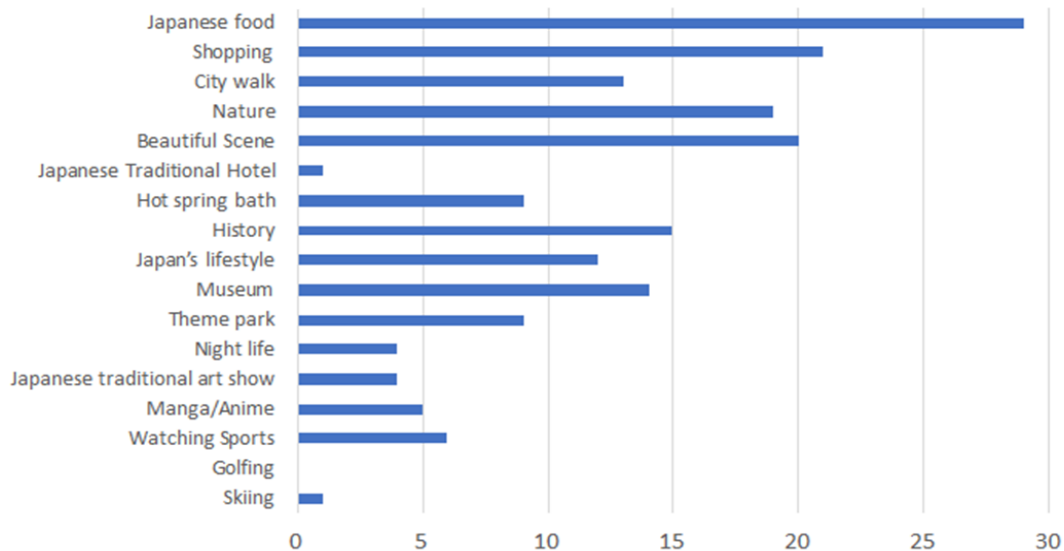


Figure 3: Expected tourism resources in Japan

Table 14: Nationality and expected tourism resources

| Answers                       | Asia | America/Africa | Taiwan | China | Others |
|-------------------------------|------|----------------|--------|-------|--------|
| Japanese food                 | 7    | 5              | 11     | 5     | 1      |
| Shopping                      | 6    | 2              | 6      | 5     | 2      |
| City walk                     | 1    | 3              | 7      | 1     | 1      |
| Nature                        | 4    | 2              | 9      | 3     | 1      |
| Beautiful Scene               | 5    | 2              | 11     | 2     |        |
| Japanese Traditional Hotel    | 1    |                |        |       |        |
| Hot spring bath               | 3    | 1              | 1      | 4     |        |
| History                       | 1    | 2              | 7      | 5     |        |
| Japan's lifestyle             | 2    | 3              | 3      | 3     | 1      |
| Museum                        | 4    | 2              | 4      | 4     |        |
| Theme park                    | 2    |                | 4      | 2     | 1      |
| Night life                    | 2    | 1              | 1      |       |        |
| Japanese traditional art show | 1    | 2              | 1      |       |        |
| Manga/Anime                   | 1    | 2              | 1      | 1     |        |
| Watching Sports               |      | 2              | 2      | 2     |        |
| Golfing                       |      |                |        |       |        |
| Skiing                        |      | 1              |        |       |        |

#### 3.1.4 Discussion

In this section, we surveyed interests and expectations to the conference site through questionnaire answers from convention participants. Half of the participants tend to prefer modern conference halls with good access (within 1 hour from the airport), but even if the access time is longer (one to three hours), "Historic buildings" and "Art/Museums," were liked by about half of the participants. Also, it became clear that foreign participants are not very much interested in the "Shrines/Temples." Regarding Japan tourism, 64% of foreign visitors to Japan are scheduled to sightseeing, but it became clear that there are variations depending on nationality. Regarding the expected tourism resources, participants from "Asia" are highly interested in "shopping," "Japanese food," and "Beautiful scenes" as a whole. But tendency is different by nationality. For "Taiwanese," "Beautiful scene," and "nature" are high, while "Shopping" and "History" are high for "Chinese." And it became clear that it is not very interested in "hot spring" where many Japanese think valuable. In addition to the fact that "shrines and temples" are not expected as venues, it was suggested that the values of Japanese and the interests and expectations of foreign participants do not always agree.



### 3.1.5 Summary

In this section, we analyzed the convention attendees' expectations in the international convention held in Japan. As shown in the result of survey, a lot of foreigners are interested in visiting local sightseeing places even though their main purpose of visiting is not sightseeing. This analysis was based on the questionnaire taken in Hamamatsu, but similar results were obtained from the same questionnaire surveys conducted in Kanazawa and Yonago, described later.

Most of attendees work in academics and have a good ability to broaden their voice through the Internet, SNS and several other media. Also, some of them may report to their colleagues on their visiting to Japan. To enhance the quality of management of sightseeing by a local government as well as the quality of convention management by convention organizers, it is one of most important methods to know expectations and satisfactions of convention attendees [22][38]. Through these data acquisition and analysis, a local government has a good chance to make a strategy of retention of visitors from foreign countries. In future research, it is necessary to carry out questionnaire on a continuous basis, increase the number of respondents, and accumulate data.

## Section 2

### Analysis of Participants to the International Conferences held in Japan And its Related Factors

#### 3.2.1 Introduction

According to JNTO 's announcement, the number of international conferences held in Japan in 2017 is 414 (according to ICCA (International Congress and Convention Association)), which is ranked as to first in the Asia - Pacific region. However, the competitiveness of the international conference in Japan is losing its relative advantage over China, Korea, Singapore, etc. compared with 10 years ago [39]. Therefore, increasing the competitiveness of the international conference is important for Japan.

In order to attract international conferences, it is important to provide conditions and places for organizing the conference to be chosen as the organizer. For organizers of international conferences, it is the most important that a large number of participants gather. For that reason, the authors have studied participants' expectations and satisfaction with the conference through questionnaires survey to participants at a specific international conference [40][41]. However, other international conferences and venues have not been studied differently.

Therefore, in this section we collect information on international conferences held in Japan. By examining the difference in the proportion of participants by the region and by the venue, we will consider the number of participants and the participation rate of foreigners in other academic fields and host regions. For these studies, we got 2427 data from JNTO in the international conference held in Japan in 2017. This statistic report is public on JNTO web site [42]. The data includes nine items such as the date of conference/convention, the name of the conference/convention, the venue, prefecture, city, the number of participating countries, the number of foreign participants, the number of Japanese participants, and total number of participants. By using chi-squared tests, items related to the number of participants were investigated.

#### 3.2.2 Data Preparation

Regarding the method of data collection, we requested JNTO, the Japanese governmental agency, to provide data. Data of 2427 international conferences held in Japan in 2017 are obtained. This statistical document (pdf version) is public and posted on the JNTO website. These data are in Excel format, and for each international conference, "Period," "Name of conference," "Venue," "Prefecture," "City," "Number of participating countries (including Japan)," "Number of foreign participants," "Number of domestic participants," and "Total number of participants" are included.

In order to facilitate analysis, the following data preprocessing was carried out. According to the academic category from the "Name of conference," we classify conference into 15 categories, as shown in Table 15 and No. of conference shown in Figure 4. According to the type of the venue from "Venue," we classify them into 6 categories shown in Table 16 and No. of conference shown in Figure 5. Figure 6 shows the number of international conferences held by venue category and academic category. Academic category No.1 to 15 shown in Figure 6 are corresponding to Table 15. The city/area is classified by its population data shown in Table 17.

Table 15 : Academic category

| No. | Academic category                              |
|-----|--|
| 1   | Humanities / Social sciences                   |
| 2   | Humanities                                     |
| 3   | Social science                                 |
| 4   | Interdisciplinary science and engineering      |
| 5   | Mathematical and physical sciences             |
| 6   | Chemistry                                      |
| 7   | Engineering                                    |
| 8   | Biological Sciences                            |
| 9   | Biology  |
| 10  | Plant production and environmental agriculture |
| 11  | Medicine, dentistry, and pharmacy              |
| 12  | Informatics                                    |
| 13  | Environmental science                          |
| 14  | Complex systems                                |
| 15  | Others   |

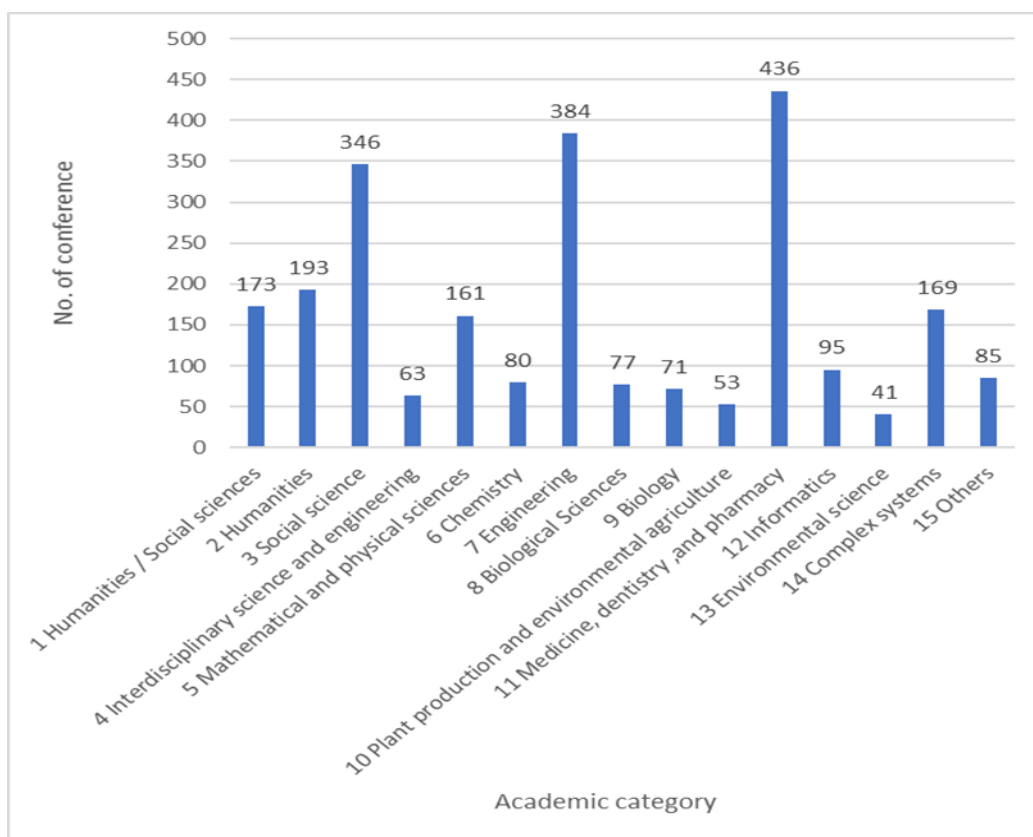


Figure 4: International conference numbers held in Japan by Academic category

Table 16: Venue category

| No. | Venue                          |
|-----|--------------------------------|
| 1   | Modern conference hall         |
| 2   | Museums                        |
| 3   | Historic buildings             |
| 4   | Shrines / Temples / Churches   |
| 5   | Hotels                         |
| 6   | University/Research institutes |
| 7   | Others                         |

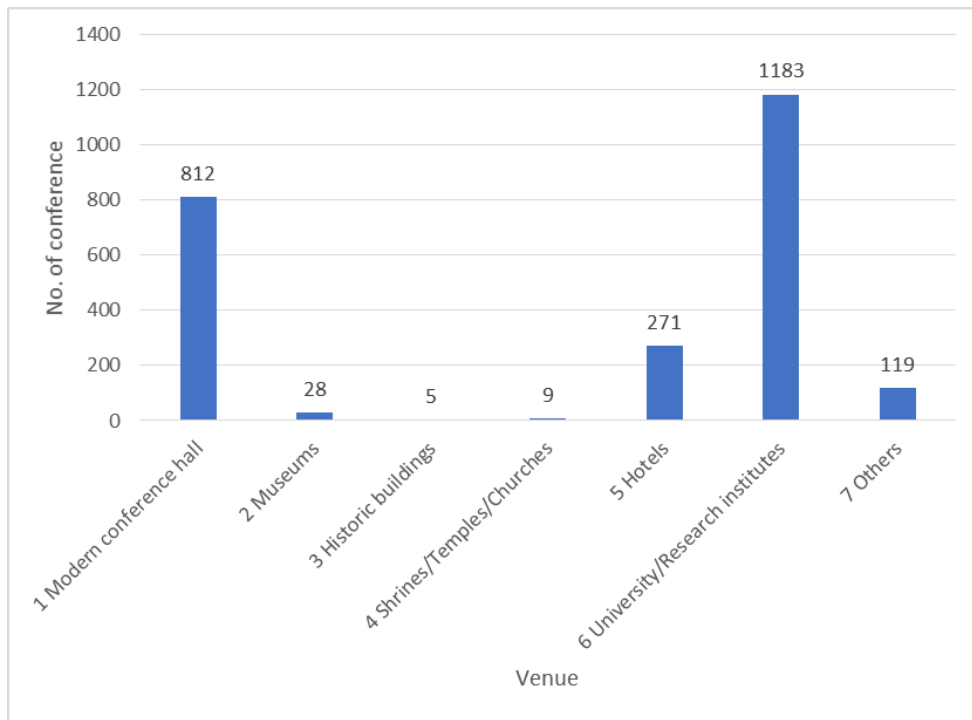


Figure 5: International conference numbers held in Japan by Venue category

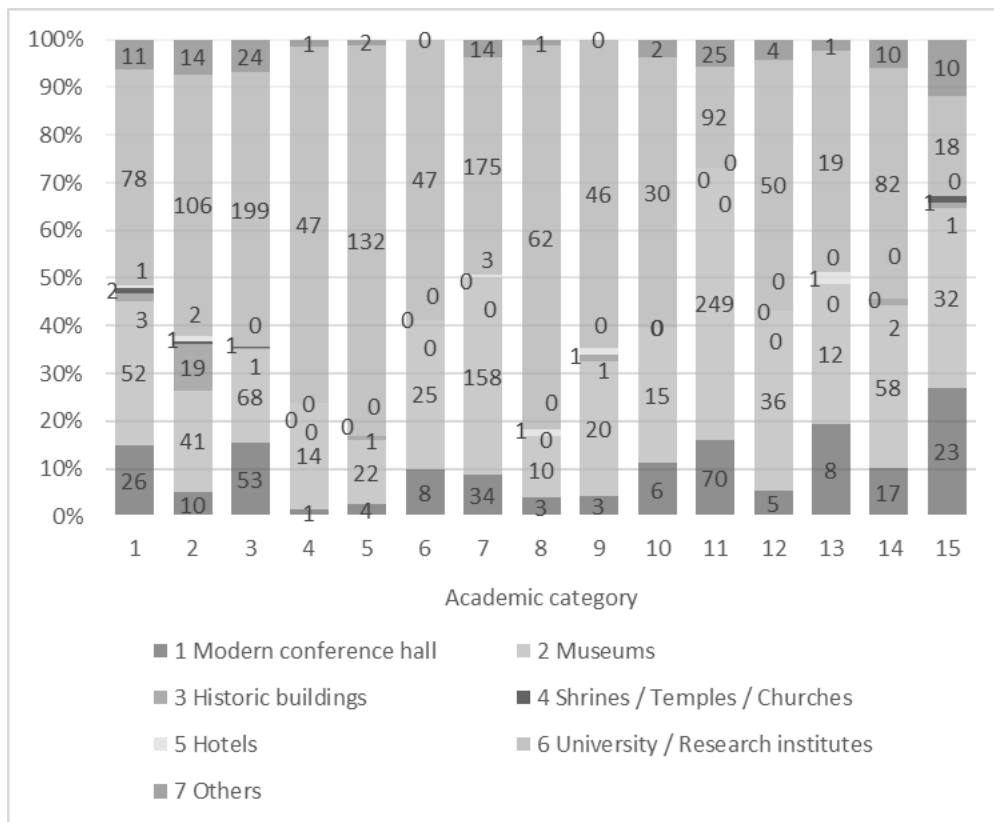


Figure 6: International conference held in Japan in 2017

Table 17: City category by population

| No. | City category by population | No. of city area | No. of conference |
|-----|-----------------------------|------------------|-------------------|
| 1   | 50k or less                 | 21               | 48                |
| 2   | 50k to 99k                  | 18               | 32                |
| 3   | 100k to 199k                | 26               | 189               |
| 4   | 200k to 499k                | 40               | 224               |
| 5   | 500k to 999k                | 14               | 256               |
| 6   | 1m or more                  | 28               | 1678              |
|     | Total                       | 147              | 2427              |

### 3.2.3 Analysis

In order to numerically clarify the relationship with other items related to the number of participants, a "Pearson's chi-squared test" which is a statistical method used for expressing the relationship between two or more variables numerically was employed. From  $\chi^2$ , the correlation coefficient of Cramer:  $v$  was obtained by the following formula.

$$v = \sqrt{\frac{\chi^2}{n(\min[k, l] - 1)}}$$

$n$ : Total frequency

$k$ : Number of rows in the crosstab

$l$ : Number of columns in the crosstab

The result of the chi-squared test is shown in Table 18. The correlation coefficient of Cramer ranges is from 0 to 1. If this value is closer to 1, it means that two items have strong relation. Since Case No. 3, 4, 6, 7 are more than 0.25, these are relevant. Therefore, we focused on two cases, which are No. 3 (V: 0.443) and 6 (0.469) with the two largest coefficient values.

Table 18: Result of chi-squared test

| No. | Measured value               | Related item-1    | Related item-2              | $\chi^2$ value | v     |
|-----|------------------------------|-------------------|-----------------------------|----------------|-------|
| 1   | No. of participants          | Academic category | Prefecture                  | 1148869        | 0.247 |
| 2   | No. of participants          | Academic category | City category in population | 181895         | 0.164 |
| 3   | No. of Japanese participants | Venue             | City                        | 1433515        | 0.443 |
| 4   | No. of Japanese participants | Venue             | Prefecture                  | 865833         | 0.345 |
| 5   | No. of Japanese participants | Academic category | City category in population | 176872         | 0.171 |
| 6   | No. of foreign participants  | Venue             | City                        | 177861         | 0.469 |
| 7   | No. of foreign participants  | Venue             | Prefecture                  | 80903          | 0.316 |
| 8   | No. of foreign participants  | Academic category | City category in population | 24690          | 0.192 |

Table 19: Sample of the calculation results by Venue category/City

| City              | Venue Category |        |      |       |       |       |       |
|-------------------|----------------|--------|------|-------|-------|-------|-------|
|                   | 1              | 2      | 3    | 4     | 5     | 6     | 7     |
| Tsukuba, 23 wards | 0.97           | -      | -    | -     | -     | -     | -     |
| Kyoto, Osaka      | -0.99          | -      | -    | -     | -     | -     | -     |
| Dazaifu           | -              | 300.14 | -    | -     | -     | -     | -     |
| Kyoto             | -              | -0.95  | -    | -     | -     | -     | -     |
| Yokohama          | -              | -      | 4.78 | -     | -     | -     | -     |
| Fukuoka           | -              | -      | 0.33 | -     | -     | -     | -     |
| Nara              | -              | -      | -    | 68.70 | -     | -     | -     |
| Nagoya            | -              | -      | -    | 0.80  | -     | -     | -     |
| Ise Shima         | -              | -      | -    | -     | 5.06  | -     | -     |
| Senri area        | -              | -      | -    | -     | -0.98 | -     | -     |
| Onna Village      | -              | -      | -    | -     | -     | 3.22  | -     |
| Nara              | -              | -      | -    | -     | -     | -0.97 | -     |
| Hakuba            | -              | -      | -    | -     | -     | -     | 11.00 |
| Yokohama          | -              | -      | -    | -     | -     | -     | -0.99 |

Then, by dividing the difference between the measured value and the expected value by the expected value, it is calculated how many times the expected value is through Formula (1).

$$\frac{\text{measured value} - \text{expected value}}{\text{expected value}} \quad (1)$$

In this calculation method to assess the performance against expectations of all 146 cities. This result is shown in Table 19 which is a sample of the calculation results of maximum and minimum cities for each venue category. Maximum result is colored by "Yellow," and minimum one is colored by "Blue."

For the evaluation of the calculation result, "-1.00" means that no conference has held in the city, "0" means that the measured value is the same as the expected value. The larger calculation result means the measured value exceeded the expected value. Therefore, we counted the cities whose measured values exceeded the expected value for



each venue category shown in Table 16.

The results of Case No.4 is shown in Table 20. In the "Modern conference hall" as the venue category 1, there are 46 cities whose measured values exceeded the expected value, and 24 cities' measured values were less than the expected value. In the "Museums" as the venue category 2, there are 12 cities whose measured values were more than the expected value, and 4 cities' measured values were less than the expected values. In the "Historic buildings" as the venue categories 3, there are 2 city whose measured values were more than the expected value, and 1 city's measured values was less than that. In the "Shrine/Temples/Church" as the venue category 4, there are 2 cities whose measured values were more than expected value, and 1 city's measured value was less than the expected value. In the "Hotels" as the venue category 5, there are 35 cities whose measured values were more than the expected value, and 16 cities' measured values were less than that. In the "University/Research institutes" as the venue category 6, there are 63 cities whose measured values were more than the expected value, and 22 cities' measured values were less than that. In the "Others" as the venue category 7, there are 18 cities whose measured values were more than expected value, and 16 cities' measured values were less than that.

Table 20: Calculation results for cities in Case No.4

|                           | Venue Category |        |       |        |       |       |       |
|---------------------------|----------------|--------|-------|--------|-------|-------|-------|
|                           | 1              | 2      | 3     | 4      | 5     | 6     | 7     |
| Less than expected values | 24             | 4      | 1     | 1      | 16    | 22    | 16    |
| More than expected values | 46             | 12     | 2     | 2      | 35    | 63    | 18    |
| Total                     | 70             | 16     | 3     | 3      | 51    | 85    | 52    |
| Max value                 | 0.48           | 297.59 | 4.62  | 102.98 | 11.35 | 4.89  | 14.05 |
| Min value                 | -0.91          | -0.95  | -0.81 | -0.26  | -0.97 | -0.93 | -0.99 |
| Average                   | 0.08           | 86.72  | 1.28  | 36.51  | 4.61  | 2.65  | 5.68  |

The results of Case No.6 is shown in Table 21. In the "Modern conference hall" as the venue category 1, there are 51 cities whose measured values exceeded the expected value, and 19 cities' measured values were less than the expected value. In the "Museums" as the venue category 2, there are 10 cities whose measured values were more than the expected value, and 4 cities' measured values were less than the expected values. In the "Historic buildings" as the venue categories 3, there is 1 city whose measured values was more than the expected value, and 2 cities' measured values were less than that. In the

"Shrine/Temples/Church" as the venue category 4, there are 2 cities whose measured values were more than expected value, and 1 city' measured value was less than the expected value. In the "Hotels" as the venue category 5, there are 34 cities whose measured values were more than the expected value, and 17 cities' measured values were less than that. In the "University/Research institutes" as the venue category 6, there are 65 cities whose measured values were more than the expected value, and 20 cities' measured values were less than that. In the "Others" as the venue category 7, there are 17 cities whose measured values were more than expected value, and 16 cities' measured values were less than that.

The result of Case No.4 and 6 are very similar. The most frequently used venues were "Universities Research institutes," and "Modern conference halls." The average of the ratio exceeding the expected value was "museum."

Table 21: Calculation results for cities in Case No.6

|                           | Venue Category |        |      |       |       |       |       |
|---------------------------|----------------|--------|------|-------|-------|-------|-------|
|                           | 1              | 2      | 3    | 4     | 5     | 6     | 7     |
| Less than expected values | 19             | 4      | 2    | 1     | 17    | 20    | 16    |
| More than expected values | 51             | 10     | 1    | 2     | 34    | 65    | 17    |
| Total                     | 70             | 14     | 3    | 3     | 51    | 85    | 53    |
| Max value                 | 0.97           | 300.14 | 4.78 | 68.70 | 5.06  | 3.22  | 11.00 |
| Min value                 | -0.99          | -0.95  | 0.33 | 0.80  | -0.98 | -0.97 | -0.99 |
| Average                   | 0.41           | 87.38  | 0.54 | 1.49  | 1.93  | 1.68  | 3.74  |

Tables 22 to 28 show representative cities with the highest values for each venue category. Results of the cities in Case No.4 and 6 were the same. In addition, if there were multiple venues at one international conference, the venues listed first were used for categorization.

Table 22: Category 1 "Modern conference hall"; the highest value: No.4:0.48/No.6:0.97

| City                         | Modern conference hall  |
|------------------------------|---|
| Tsukuba, 23 wards            | Tsukuba International Conference Hall, Tokyo International Forum, Materials Research Organization                           |
| Kikuchi, Kumamoto            | Kikuchi City Municipal Hall, Hotel Nikko Kumamoto   |
| Kurume                       | Kurume City Plaza   |
| Kyoto, Hikone                | Kyoto Telsa, Shiga university   |
| Kiryu                        | Kiryu City Citizens' Culture Center   |
| Hiroshima, Higashi Hiroshima | Hiroshima City Cultural Exchange Center, Hiroshima University   |
| Takaoka                      | Wing Takaoka  |
| Kochi                        | Kochi City Culture Plaza Karuport   |
| Sado                         | Ai Po and Sado (Sado Information Center)  |
| Yamaguchi                    | Yamaguchi Prefecture Seminar Park   |
| Yaizu                        | Yaizu City Cultural Center  |
| Shinshiro                    | Shinshiro Culture Center  |
| Kobe, Okayama                | Kobe Convention Center, Okayama University  |
| Setouchi                     | Yumetopia Nagafune  |
| Aomori                       | Link Station Hall Aomori  |
| Chiba, Yokohama              | Makuhari Messe, Pacifico Yokohama   |
| Izumisano, Nara, Osaka       | Izumisano City Cultural Center, Nara City Youth Outdoor Activity Center, Osaka Prefectural Gender Equality and Youth Center |
| Daisen                       | Omagari Municipal House   |
| Awaji                        | Awaji Yumebutai International Conference Hall   |
| Toki                         | Seratopia Toki  |
| Nara, Shirahama              | Nara Kasuga International Forum, Kishu Shirahama Onsen Musashi  |
| Nanyo                        | Shelter Nanjo Hall (Nanyang City Cultural Center)   |
| Nomi                         | Ishikawa High-Tech Exchange Center  |
| Fukushima                    | Collasse Fukushima  |
| Nago                         | BANKOKU SHINRYOKAN  |
| Monbetsu                     | Monbetsu Municipal Hall, Monbetsu City Cultural Center, Monbetsu City Museum  |

Table 23: Category 2 "Museum"; the highest value: 297.59/300.14

| City    | Museums   |
|---------|---|
| Kahoku  | Ishikawa Prefecture Nishida Kitaro Memorial Philosophy Museum |
| Seto    | Aichi Prefecture Ceramics Museum                              |
| Dazaifu | Kyushu National Museum  |
| Sakura  | National Historic Folk Museum                                 |

Table 24: Category 3 "Historic buildings"; the highest value: 4.67/4.78

| City     | Historic buildings   |
|----------|--|
| Yokohama | KAAT Kanagawa Arts Theater, BankART Studio NYK, Yokohama Red Brick Warehouse No.1 Building |

Table 25: Category 4 "Shrines/Temples"; the highest value: 102.98/68.7

| City | Shrines/Temples/Churches                                 |
|------|--|
| Nara | Yakushiji Mahoroba Kaikan, Todaiji Togyo Cultural Center |

Table 26: Category 5 "Hotels"; the highest value: 11.35/5.06

| City                 | Hotels  |
|----------------------|---|
| Asahikawa            | Asahikawa Grand Hotel   |
| Ise Shima district   | Toba Kokusai Hotel  |
| Karuizawa            | Karuizawa Prince Hotel  |
| Urayasu              | Disney Ambassador Hotel, Tokyo DisneySea Hotel MiraCosta, Tokyo Bay Maihama Hotel Club Resort |
| Kyoto, Kitsugawa     | The Westin Miyako Hotel Kyoto, International Institute for Advanced Studies                   |
| Karuizawa            | Karuizawa Prince Hotel  |
| Inuyama, Nagoya      | Meitetsu Inuyama Hotel, Inuyama International Tourism Center (Floydet), Nagoya University     |
| Saga                 | Hotel Grande Sakagure, Saga City Higashi-ganka Culture Hall                                   |
| Yokkaichi            | Yokkaichi Miyako Hotel  |
| Mito                 | Mito Keisei Hotel   |
| Ishigaki             | ANA InterContinental Ishigaki Resort, Art Hotel Ishigakijima                                  |
| Zao                  | Active Resorts Miyagi Zao   |
| Tendo                | Hohoeminoyado Takinoyu  |
| Hakone               | The Prince Hakone Ashinoko  |
| Toyooka              | Blue Ridge Hotel  |
| Kitashiobara Village | Active Resorts Uchibando  |

Table 27-1: Category 6 "University/Research institutes"; the highest value: 4.89/3.22

| City                  | University/Research institutes  |
|-----------------------|---|
| Imari                 | Saga University   |
| Uji                   | Kyoto University  |
| Onna village          | Okinawa Institute of Science and Technology   |
| Aizuwakamatsu         | Aizu University   |
| Kyoto, Seika          | Kyoto University, Keihanna Plaza  |
| Saga, Fukuoka         | Saga University, Latin Cultural Center Tiempo   |
| Sayochō               | SACLA   |
| Sapporo, Date         | Hokkaido University   |
| Mihara                | Prefectural University of Hiroshima   |
| Narashino             | Chiba Institute of Technology, Nihon University   |
| Kasugai               | Kyushu University   |
| Kasuga                | Chubu University  |
| Ueda                  | Shinshu University  |
| Neyagawa              | Osaka Electro-Communication University  |
| Minamata              | National Minamata Disease Research Center   |
| Ikoma                 | Nara Institute of Science and Technology  |
| Nishitokyo            | Musashino University  |
| Chiba, Matsudo        | Chiba University  |
| Funabashi             | Toho University   |
| Maebashi              | Gunma University  |
| Osaka, Tokyo 23 wards | Ministry of Justice Legal Research Institute, International Cooperation Agency Headquarters |
| Oita                  | Nippon Bunri University   |
| Ikeda                 | Osaka Kyoiku University attached high school Ikeda school building                          |
| Chofu                 | The University of Electro-Communications  |
| Nagaoka               | Nagaoka University of Technology  |
| Nagano                | Shinshu University  |
| Nagano, Matsumoto     | Shinshu University, Hotel Sho Feng  |
| Tenri                 | Tenri University  |

Table 27-2: Category 6 "University/Research institutes"; the highest value: 4.89/3.22

| City                         | University/Research institutes  |
|------------------------------|---|
| Tokyo 23 wards, Morioka      | Science and Technology Promotion Organization, Taiman Hotel Yumori  |
| Higashi Hiroshima, Hiroshima | Hiroshima University, Hiroshima International Conference Center   |
| Higashiosaka                 | Kinki University  |
| Hatsukaichi                  | Hiroshima Keizai University   |
| Hachioji                     | Tokyo Metropolitan University, Teikyo University  |
| Fuchu                        | Tokyo University of Foreign Studies, Tokyo University of Agriculture and Technology   |
| Noda                         | Tokyo University of Science   |
| Nonoichi                     | Kanazawa Institute of Technology  |
| Tachikawa                    | Data Science Shared Utilization Infrastructure, National Institute of Polar Research, National Institute for Japanese Language, Statistical Mathematics Institute |
| Nagareyama                   | Edogawa University  |
| Wako                         | Riken   |

Table 28: Category 7 "Others"; the highest value: 14.5/11.00

| City                | Others  |
|---------------------|---|
| Kure                | Kure Medical Center   |
| Koshi               | National Sanatorium Kikuchi Keifuen   |
| Tokoname            | Chubu International Airport Centrair  |
| Seika, Kizugawa     | Keihanna Open Innovation Center, Keihanna Plaza, International Institute for Advanced Studies   |
| Tagajo              | Tagajo City Cultural Center   |
| Tajiri              | The Japan Foundation Kansai International Center  |
| Tanabe              | Kinan Cultural Hall, Tanabe City Cultural Exchange Hall Tanaberu  |
| Tokushima           | Tokugin Tomony Plaza  |
| Nara, Osaka, Nantan | Nara City Youth Outdoor Activity Center, Osaka Prefectural Gender Equality and Youth Center, Miyama Town Natural Culture Village Kawasakaso |
| Hakuba              | Hakuba Happo One Ski Resort   |
| Fujiyoshida         | Human Resources Development Center Fuji Calm  |

#### 3.2.4 Discussion

According to the results of the analysis by the chi-squared test shown in Table 18, from the case where the correlation coefficient of Cramer exceeds 0.25, it become clear that "Japanese and foreign participants are influenced by the venue in prefectures and cities." Also, it turned out that the other factors are almost irrelevant.

Furthermore, as shown in Tables 20 and 21, tendency of venues whose measured values exceeded the expected value was very similar. In both cases, Category 1 "Modern conference hall" and Category 6 "University/Research institution" were top two venues from the exceeding expectations point of view.

Other than that, it was also revealed that certain places and venues showed a performance that greatly exceeded expectations. As shown in Table 23, there were four museums located in Kahoku, Sakura, Seto, and Dazaifu whose measured values are 297.59/300.14 times higher than the expected value. In Table 24, there was one historic building in Yokohama, 4.62/4.78 times higher than the expected value. In Table 25, there was a Buddhist temple in Nara whose measured value was 102.98/68.7 times higher than the expected value. Case No.4 is 1.5 times higher than Case No.6. In Table 26, there are



16 hotels whose measured values are 11.35/5.06 times higher than the expected value, and in Table 28 there were eleven other kind of venues that are 14.05/11.00 times higher than expected value.

For these reasons, "University / Research institution" and "Modern conference hall" are considered to be a standard choice from the viewpoint of attracting participants from all countries, including Japan. Meanwhile, a certain venue may show outstanding performance. Certain Temples/Shrine are attracting Japanese participants and some hotels are success to attract foreign participants.

### 3.2.5 Summary

In this section, we analyzed the relationships with participants, by using chi-squared test, on 2427 data of international conferences held in Japan in 2017 provided by JNTO. As for the venue and city to assess the expected value, some of the findings were obtained. From the correlation coefficient of Cramer value, there are relevance between Foreign/Japanese participant and city/venue. However, there is little relationship to city size and population. "University/Research institution" and "Modern conference hall" are standard choice from the exceeding expectations point of view. Meanwhile, a certain venue, such as "Museum" and "Shrine/Temple" are showing outstanding performance of exceeding expected values. These findings are good suggestions for the organizers when they would select cities and venues of international conferences.

## CHAPTER IV PARTICIPANT EXPECTATION ANALYSIS ON INTERNATIONAL CONFERENCE PROGRAMS

### 4.1 Introduction

By holding MICE (Meetings, Incentives, Conferencing and Exhibitions), it is possible to realize accumulation of knowledge, business opportunities and innovation creation through knowledge and business exchange by attracting researchers and business persons visiting to Japan. Furthermore, it brings great economic ripple effects to the area centered on the venue. These play an extremely important role in autonomous development of cities and countries with vitality. The economic ripple effect of the international MICE in 2017 was estimated to be 1 trillion and 59 billion yen, including 679 billion yen generated by conference, and 62,587 people were employed [3]. In terms of the amount of consumption for one trip to Japan, the average of foreign visitors is 153,921 yen [3], while the participants in the international conference are about two times higher, such as 373 thousand yen [43].

Therefore, not only Japan but also major countries and cities in the world pay attention to such ripple effects of MICE. In order to overcome the intensifying international competition, each country is strengthening its attraction activities in various ways by improving the MICE hosting environment such as facilities, operators and services. In order for Japan to establish a solid position as a MICE destination, it is important to know and meet the needs of the organizers and participants. Furthermore, a strategic approach and marketing that emphasizes Japan's superiority are strongly required by differentiating from overseas competition cities and solving customer issues at a high level.

In Japan, JNTO, a government agency, is leading the way in strengthening MICE, but research and promotion related to MICE cannot always be superior to other countries.

In this research, we carry out an attitude survey by questionnaire to international conference participants and clarify the purpose of participation. Since it is important to conduct a customer awareness survey in marketing, we used a questionnaire this time. Furthermore, for participants with a particularly high sense of purpose, we aim to clarify relevant matters that will lead to the enhancement of international competitiveness by clarifying the interest and expectations of venues and services. However, although the degree of satisfaction of the participants has been analyzed, it is thought that the purpose of the participants becomes more important when actually attracting an international conference. Therefore, in this study, we focus on the purpose of participating in the academic international conference, and analyze the expectations of the participants with a high sense of purpose.

## 4.2 Data Collection

### 4.2.1 Target

For participants of the international conference held in Yonago City, Tottori Prefecture in July 2018, we conducted a questionnaire survey on "purpose," "meeting place," "service," "tourism" and so on. The survey method was as follows: 1) Web questionnaires at the time of pre-check-in acceptance via the Internet and 2) Questionnaire survey sheets were distributed at check-in at the venue and collected during the conference period. The total number of responses was 110, including 57 Japanese participants and 53 foreign participants.

### 4.2.2 Questionnaire

The questionnaire consisted of 28 questions including six questions about profiles of respondent. The purpose of the awareness survey was "Participation purpose," "Expected event," "Permitted travel time," "Expected venue," "Host city", "Tourism resource," and "Experience in international conference." Six questions about profiles were "Gender," "Age," "Nationality," "Occupation," "Specialty," and "Annual income."

## 4.3 Analysis Results

### 4.3.1 Respondants distribution

There were 110 respondents to this questionnaire. As shown in Table 28, the gender was 21.8% for "Female," 77.3% for "Male," and 0.9% for "Other." The age distribution is shown in Table 29. In the 20's was 29.1%, in the 30's was 20.9%, in the 40's was 24.5%, in the 50's was 18.2%, in the 60's was 5.5%, and unanswered was 1.8%. The relatively young generation, which means 20's and 30's, accounted for half of the respondents. The nationality distribution of the participants is shown in Table 30. The participating countries were 15 countries, including Japan. Regarding the number of participants, those from Japan accounted for about half (51.8%) of all participants. The next most popular participants were from Taiwan which was 28.2%, and 6.4% from China. Participants from Asian area, including Thailand and Indonesia etc., accounted for more than 90% of the total participants. The occupation distribution of the participants is shown in Table 31. The number of "Graduate students" was the highest at 32.7%, followed by "Full professors" (20.0%) and "Associate professors" (18.2%). Participants from companies were 6.4%, and about 90% were university staffs and students. The distribution of the participants' specialty is shown in Table 32. The respondents, specialties were in 10 fields, with 30.9% for "Science" and 28.2% for "Engineering," accounting for about 60% of the total. The annual income distribution of the participants is shown in Table 33.

Table 28: Respondent gender distribution (N=110)

| Gender | Frequency | Percentage |
|--------|-----------|------------|
| Female | 24        | 21.8%      |
| Male   | 85        | 77.3%      |
| Other  | 1         | 0.9%       |
| Total  | 110       | 100.0%     |

Table 29: Respondent age distribution (N=110)

| Age        | Frequency | Percentage |
|------------|-----------|------------|
| 20's       | 32        | 29.1%      |
| 30's       | 23        | 20.9%      |
| 40's       | 27        | 24.5%      |
| 50's       | 20        | 18.2%      |
| 60's       | 6         | 5.5%       |
| Unanswered | 2         | 1.8%       |
| Total      | 110       | 100.0%     |

Table 30: Respondent nationality distribution (N=110)

| Nationality | Frequency | Percentage |
|-------------|-----------|------------|
| Australia   | 1         | 0.9%       |
| Austria     | 1         | 0.9%       |
| Botswana    | 1         | 0.9%       |
| China       | 7         | 6.4%       |
| Hungary     | 1         | 0.9%       |
| Indonesia   | 2         | 1.8%       |
| Iran        | 1         | 0.9%       |
| Japan       | 57        | 51.8%      |
| Malaysia    | 1         | 0.9%       |
| Philippine  | 1         | 0.9%       |
| Sri Lanka   | 1         | 0.9%       |
| Taiwan      | 31        | 28.2%      |
| Tibet       | 1         | 0.9%       |
| Thai        | 3         | 2.7%       |
| USA         | 1         | 0.9%       |
| Total       | 110       | 100.0%     |

Table 31: Respondent occupation distribution (N=110)

| Occupation            | Frequency | Percentage |
|-----------------------|-----------|------------|
| Company director      | 2         | 1.8%       |
| Company manager       | 3         | 2.7%       |
| Company employee      | 2         | 1.8%       |
| Assistant professor   | 13        | 11.8%      |
| Lecturer              | 6         | 5.5%       |
| Associate professor   | 20        | 18.2%      |
| Full professor        | 22        | 20.0%      |
| Graduate student      | 36        | 32.7%      |
| Undergraduate student | 1         | 0.9%       |
| others                | 4         | 3.6%       |
| Unanswered            | 1         | 0.9%       |
| Total                 | 110       | 100.0%     |

Table 32: Respondent specialty distribution (N=110)

| Specialty   | Frequency | Percentage |
|-------------|-----------|------------|
| Literature  | 1         | 0.9%       |
| Science     | 34        | 30.9%      |
| Sociology   | 4         | 3.6%       |
| Management  | 6         | 5.5%       |
| Pedagogy    | 8         | 7.3%       |
| Business    | 3         | 2.7%       |
| Linguistics | 1         | 0.9%       |
| Engineering | 31        | 28.2%      |
| Politics    | 1         | 0.9%       |
| Others      | 21        | 19.1%      |
| Total       | 110       | 100.0%     |

Two peaks were observed at 32.7% for "US \$ 10,000 or less" and 31.8% for "US \$ 50,000-99,999". This is presumed to be similar to the tendency of "Graduate students"

and "Full professors"/"Associate professors" from "Occupation distribution" which is shown in Table 31.

Table 33: Respondent annual income distribution

| Annual income       | Frequency | Percentage |
|---------------------|-----------|------------|
| US\$10,000 or less  | 36        | 32.7%      |
| US\$10,000-29,999   | 15        | 13.6%      |
| US\$30,000-49,999   | 16        | 14.5%      |
| US\$50,000-99,999   | 35        | 31.8%      |
| US\$100,000 or over | 8         | 7.3%       |
| Total               | 110       | 100.0%     |

#### 4.3.2 Analysis of data

In this analysis, firstly, we focused on the question for "Participation purpose" shown in Table 34. In order to measure degree of the respondents, questions are evaluated in five grades (1: Least important/least agree, 2: less important/less agree, 3: Neutral, 4: More important/more agree, 5: Very important/most agree). The mean value of answer scores is shown in Figure 7 for comparison by gender and in Figure 8 for comparison of Japanese and foreigners. These mean values are shown in Table 35. Items, whose mean values exceeded "4," are marked by "\*\*\*" and items, whose mean values are lower than "3," are marked by "\*".

Table 34: Question items of "Purpose of attending the international conference"

| No.   | Items   |
|-------|---|
| Q1-1  | Educational purpose   |
| Q1-2  | Presentation for this international conference              |
| Q1-3  | Opportunities for Networking                                |
| Q1-4  | Job opportunities   |
| Q1-5  | Interesting conference programs                             |
| Q1-6  | Career development  |
| Q1-7  | Personal development  |
| Q1-8  | Association related activities                              |
| Q1-9  | Visiting friends and relatives                              |
| Q1-10 | Escape from routine   |
| Q1-11 | Conference committee requested you to attend the conference |

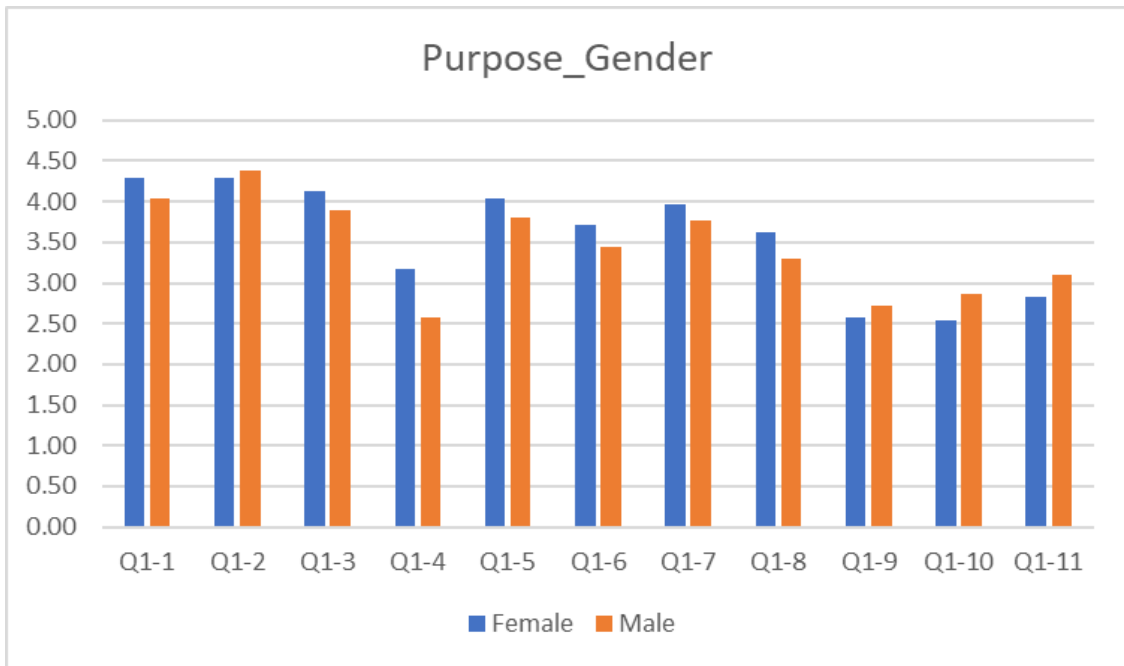


Figure 7: Participation purpose comparison by gender

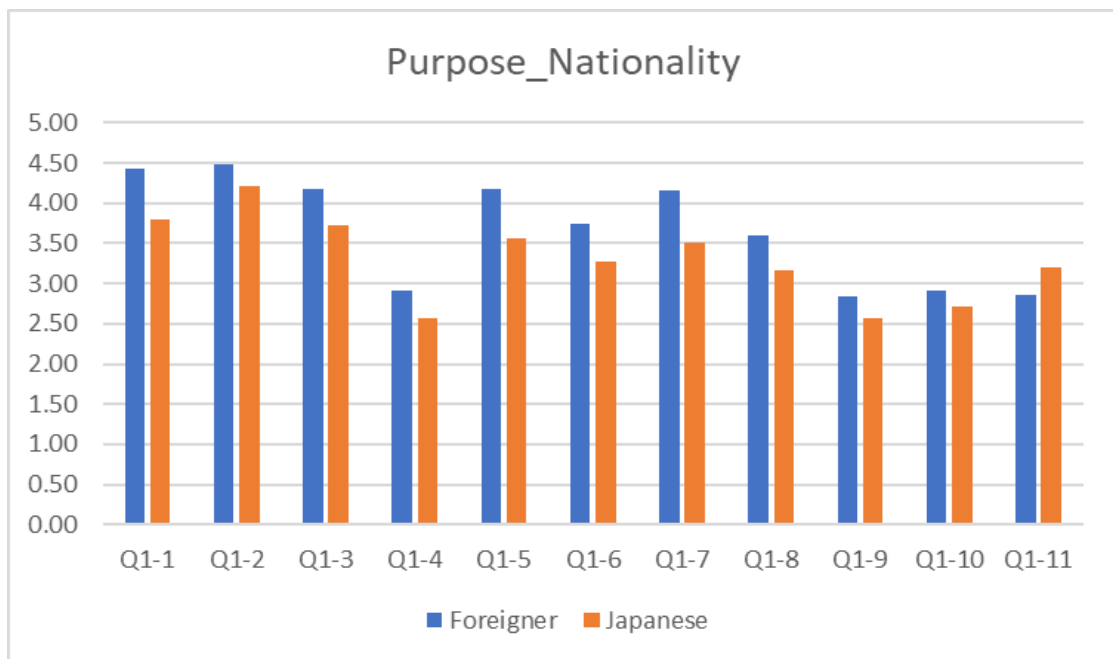


Figure 8: Participation purpose comparison by nationality

Table 35: Mean value of Participation purpose

| Question | Gender |        | Nationality |          |
|----------|--------|--------|-------------|----------|
|          | Female | Male   | Foreigner   | Japanese |
| Q1-1     | **4.29 | **4.04 | **4.43      | 3.79     |
| Q1-2     | **4.29 | **4.38 | **4.49      | **4.21   |
| Q1-3     | **4.13 | 3.89   | **4.17      | 3.72     |
| Q1-4     | 3.17   | *2.58  | *2.90       | *2.56    |
| Q1-5     | **4.04 | 3.80   | **4.17      | 3.56     |
| Q1-6     | 3.71   | 3.44   | 3.75        | 3.28     |
| Q1-7     | 3.96   | 3.78   | **4.15      | 3.51     |
| Q1-8     | 3.63   | 3.30   | 3.60        | 3.16     |
| Q1-9     | *2.58  | *2.73  | *2.85       | *2.56    |
| Q1-10    | *2.54  | *2.87  | *2.90       | *2.72    |
| Q1-11    | *2.83  | 3.10   | *2.87       | 3.19     |

In terms of mean values, "Presentation for this international conference" (Q1-2), whose mean values of all attribute, such as Female/Male and Foreigner/Japanese, exceeded "4" (Female/Male, Foreigner/Japanese=4.29/4.38, 4.49/4.21). "Education purpose" (Q1-1), whose mean values of 3 kinds of attribute, such as Female/Male and Foreigner, exceeded "4" (4.29/4.04, 4.43/3.79). "Opportunities for Networking" (Q1-3), whose mean values of 2 kinds of attribute, such as Female and Foreigner, exceeded "4" (4.13/3.89, 4.17/3.72). "Interesting conference program" (Q1-5), whose mean values of 2 kinds of attribute, such as Female and Foreigner, exceeded "4" (4.04/3.80, 4.17/3.56). On the other hand, "Visiting friends and relatives" (Q1-9), and "Escape from routine" (Q1-10), whose mean values of all attribute, such as Female/Male and Foreigner/Japanese, were lower than "3" (2.58/2.73, 2.85/2.56, 2.54/2.87, 2.90/2.72). "Job opportunities" (Q1-4), whose mean values of 3 kinds of attribute, such as Male and Foreigner/Japanese, lower than "3" (3.17/2.58, 2.90/2.56). "Conference committee requested you to attend the conference" (Q1-11), whose mean values of 2 kinds of attribute, such as Female and Foreigner, were lower than "3" (2.83/3.10, 2.87/3.19).

Then, we conducted an analysis focusing on the participants who scored high (4 and 5) in the top four question items, which are Q1-1/Q1-2/Q1-3/Q1-5. A total of 62 participants (23 Japanese, 39 foreigners) were eligible. It seems to be important for the organizer who plans the international conference to clarify the items that are of interest to



high motivated participants. Related questions are shown in Table 36 and Table 37. Questions shown in Table 37 are for only foreign participants.

Table 36: Question items for expectation for the event and venues (for all participants)

| No.  | Items                                     |
|--|---|
| Q2: Expectation to the event during conference term                    |   |
| Q2-1   | Banquet (dinner party)                    |
| Q2-2   | Welcome Reception Party                   |
| Q2-3   | Farewell Reception Party                  |
| Q2-4   | Coffee Break                              |
| Q2-5   | Excursion                                 |
| Q2-6   | Attraction (traditional dance show, etc.) |
| Q3: Expectation to the venue of international conference held in Japan |   |
| Q3-1   | Modern conference hall                    |
| Q3-2   | Museums                                   |
| Q3-3   | Historic buildings                        |
| Q3-4   | Shrines / Temples / Churches              |
| Q3-5   | Hotels                                    |

Table 37: Question items for intention of visiting Japan (only for foreigners)

| No.   | Items   |
|-------|---|
| Q4-1  | Do you want to visit Japan for your sightseeing travel?   |
| Q4-2  | Do you want to visit Japan to attend an international conference?                                       |
| Q4-3  | Convenient transportation availability to Japan is important for you to travel to the conference venue. |
| Q4-4  | How is the convenience of travel from your country to Japan?  |
| Q4-5  | What do you want to experience to eat Japanese food during your stay in Japan?                          |
| Q4-6  | Do you expect to buy good Japanese traditional souvenir?  |
| Q4-7  | Do you want to make a time to have sightseeing in Japan after/before the conference?                    |
| Q4-8  | Do you want to visit local city in Japan after/before the conference?                                   |
| Q4-9  | How do you think the importance of cost of sightseeing in Japan?  |
| Q4-10 | Do you expect a dinner party in international conference held in Japan?                                 |

Table 38 shows the answers to the questions shown in Table 36. Table 39 shows the answers to the questions shown in Table 37. Items, whose mean values exceeded "4," are marked by "\*\*\*". Items, whose difference ( $\Delta$ ) values exceeded "0.5," are marked by "\*\*". Regarding "Q2: Expectation to the event during conference term," for both foreign and Japanese participants, it became clear that the expectation for "Coffee Break" (4.16), "Banquet (dinner party)" (3.98), and "Welcome Reception Party" (3.77) were high. On the other hand, it was found that the overall expectations for "Farewell Reception Party" (3.32) was low. In addition, regarding "Excursion" and "Attraction (traditional dance show, etc.)," it became clear that the degree of expectation differs greatly between the foreign participant (3.49/3.46) and the Japanese participant (2.83/2.61). According to these observations, "Banquet (dinner party)," "Welcome Reception Party," and "Coffee Break" are the most expected events during the conference period, so fulfilling these events is very important. And from the perspective of international competitiveness, it is considered that the enrichment of "Excursion" and "Attraction (traditional dance show, etc.," is effective in attracting foreign participants.

For the answer regarding the venue, is "Modern conference hall" was the most expected for both foreign participants (4.03) and Japanese participants (3.74). And "Historic buildings," (3.68) and "Hotels" (3.68) were the second position for all participants. On the hand, for foreign participants, "Historic buildings," (3.85) were the second, but "Hotels" (3.48) was the second for the Japanese participants. As for "Museums," the difference between the expectations for foreign and Japanese participants was the largest ( $\Delta = 0.521$ ).

Table 38: Answered value of expectation for the event and venues (for all participants)

| Question  |     | All eligible (N=62) | Foreigner eligible (N=39) | Japanese eligible (N=23) | $\Delta$ |
|---|-----|---------------------|---------------------------|--------------------------|----------|
| Q2-1 Banquet (dinner party)                     | AVE | 3.98                | 3.97                      | **4.00                   | -0.03    |
|   | STD | 0.94                | 0.86                      | 1.09                     | -0.23    |
| Q2-2 Welcome Reception Party                    | AVE | 3.77                | 3.87                      | 3.61                     | 0.26     |
|   | STD | 0.87                | 0.76                      | 1.03                     | -0.27    |
| Q2-3 Farewell Reception Party                   | AVE | 3.32                | 3.38                      | 3.22                     | 0.16     |
|   | STD | 0.86                | 0.74                      | 1.04                     | -0.30    |
| Q2-4 Coffee Break                               | AVE | **4.16              | **4.23                    | **4.04                   | 0.19     |
|   | STD | 0.74                | 0.70                      | 0.82                     | -0.12    |
| Q2-5 Excursion                                  | AVE | 3.24                | 3.49                      | 2.83                     | *0.66    |
|   | STD | 1.09                | 1.06                      | 1.03                     | 0.03     |
| Q2-6 Attraction (traditional dance show, etc. ) | AVE | 3.15                | 3.46                      | 2.61                     | *0.85    |
|   | STD | 1.01                | 0.98                      | 0.84                     | 0.14     |
| Q3-1 Modern conference hall                     | AVE | 3.92                | **4.03                    | 3.74                     | 0.29     |
|   | STD | 0.90                | 0.86                      | 0.96                     | -0.10    |
| Q3-2 Museums                                    | AVE | 3.37                | 3.56                      | 3.04                     | *0.52    |
|   | STD | 1.07                | 0.98                      | 1.15                     | -0.17    |
| Q3-3 Historic buildings                         | AVE | 3.68                | 3.85                      | 3.39                     | 0.46     |
|   | STD | 1.10                | 1.03                      | 1.20                     | -0.17    |
| Q3-4 Shrines/Temples/Churches                   | AVE | 3.08                | 3.18                      | 2.91                     | 0.27     |
|   | STD | 1.22                | 1.28                      | 1.12                     | 0.16     |
| Q3-5 Hotels                                     | AVE | 3.68                | 3.79                      | 3.48                     | 0.31     |
|   | STD | 1.01                | 0.99                      | 1.04                     | -0.05    |

Table 39 shows the answers to the questions shown in Table 37. Items, whose average values exceeded "4," are marked by "\*\*\*". Items, whose absolute values of difference ( $\Delta$ ) exceeded "0.5," are marked by "\*". This question is for only foreign participants. We tried to understand the difference in incentives for visiting Japan by comparing the overall foreign participants with those who scored high. As a result, it was revealed that foreign participants who scored high had a relatively low degree of incentive to visit Japan compared with all foreign participants. In particular, the difference of average values were

remarkable in "Sightseeing travel to Japan," ( $\Delta=0.77$ )," "International conference held in Japan," (0.64) and "After convention of sightseeing" (0.68). On the other hand, participants who scored high were found to be motivated by items such as "Importance of transportation," (4.11). For all foreign participants, "Importance of transportation," (4.60) "Sightseeing travel to Japan," (4.44) and "International conference held in Japan" (4.40) are the top three incentives for visiting Japan. We also found that "Traditional souvenir" was the lowest value for both (3.96/3.40).

Table 39: Answered value of intention of visiting Japan (only for foreigners)

| Question                                    |     | All<br>foreigner<br>(N=53) | Foreigner<br>eligible<br>(N=39) | $\Delta$ |
|---|-----|----------------------------|---------------------------------|----------|
| Q4-1 Sightseeing travel to Japan            | AVE | **4.44                     | 3.67                            | *0.77    |
|   | STD | 0.80                       | 1.64                            | *-0.84   |
| Q4-2 International conference held in Japan | AVE | **4.40                     | 3.76                            | *0.64    |
|   | STD | 0.63                       | 1.44                            | *-0.81   |
| Q4-3 Importance of transportation           | AVE | **4.60                     | **4.11                          | 0.49     |
|   | STD | 0.69                       | 1.44                            | *-0.75   |
| Q4-4 Convenience of travel to Japan         | AVE | **4.18                     | 3.67                            | *0.51    |
|   | STD | 1.05                       | 1.58                            | *-0.53   |
| Q4-5 Japanese food                          | AVE | **4.36                     | 3.77                            | *0.59    |
|   | STD | 0.82                       | 1.45                            | *-0.63   |
| Q4-6 Traditional souvenir                   | AVE | 3.96                       | 3.40                            | *0.56    |
|   | STD | 0.96                       | 1.48                            | *-0.52   |
| Q4-7 After convention of sightseeing        | AVE | **4.28                     | 3.60                            | *0.68    |
|   | STD | 0.85                       | 1.57                            | *-0.73   |
| Q4-8 After convention at local city         | AVE | **4.28                     | 3.71                            | *0.57    |
|   | STD | 0.78                       | 1.45                            | *-0.67   |
| Q4-9 Importance for cost of sightseeing     | AVE | **4.20                     | 3.69                            | *0.51    |
|   | STD | 0.69                       | 1.39                            | *-0.69   |
| Q4-10 Expect for dinner party               | AVE | **4.02                     | 3.45                            | *0.57    |
|   | STD | 1.17                       | 1.59                            | -0.41    |

#### 4.4 Discussion

According to the results of the analysis shown in Figure 7, Figure 8, and Table 33, it was revealed that the top four purposes for participation in the international conferences were "Educational purpose," "Presentation for this international conference," "Opportunities for Networking," and "Interesting conference programs." Especially, "Presentation for this international conference," was important for all participants, regardless of nationality or gender. In planning a conference program, it is important to meet the expectations of participants with these 4 items.

In terms of participants' expectations, we analyzed the events during the conference and venues. As a result, it became clear that the expected events of the participants were "Coffee Break," "Banquet (dinner party)," and "Welcome Reception Party." We also learned that "Farewell Reception Party" is not much expected. And for foreign participants, it turned out that "Excursion" and "Attraction" were also expected events. If an international conference organizer wants to increase attendants, especially from a foreign audience, strengthening and proactively notifying these events could lead to good results. Regarding the expectations for the venue, it became clear that the "Modern conference hall" has the highest expectations from all nationality participants. In other words, regardless of their nationality, it can be considered as a venue that is easy to attract participants. However, if organizers want to attract mainly foreign participants, it needs to consider "Historical buildings," and "Museums." On the other hand, "Shrines / Temples / Churches" seems to be difficult to use as a venue, except in special cases.

Regarding answers to the question of "intention of visiting Japan," the mean value of all foreigners is always higher than high scored participants. These participants have less interest for "Sightseeing travel to Japan," for example, than the mean of entire foreigners. Participants with a high sense of purpose for the international conference may have a relatively low interest in other things.

#### 4.5 Summary

In this chapter, we surveyed and analyzed the participants of the international conference. First, we clarified the important items for the purpose of participating in the conference. These were "Education purpose," "Presentation for this international conference," "Networking opportunity," and "Interesting conference programs." Then, focusing on the Japanese and foreign participants who scored high (4 and 5) on these four items, they clarified the "Social event," and "Venue," which are expected. From these analyzes, tendency of the expected events were same by foreigners and Japanese. But, tendency of expected venue was different, that is Japanese expected "Modern conference

hall," but, foreigners had an interest for "Historic buildings" and "Hotels," also. In addition, regarding the motivation for visiting Japan, we found that participants with a high sense of purpose were less motivated to visit Japan. It is considered that the sense of purpose of the international conference participation could be improved by "Opportunities for Networking," and "Interesting conference programs."

This analysis was based on a questionnaire taken in Yonago, but similar results were obtained in the same questionnaire surveys conducted in other cities, such as Hamamatsu and Kanazawa, described in Chapter III and Chapter VI.

## CHAPTER V CONSCIOUSNESS ANALYSIS ON INTERNET REVIEW DATA OF FOREIGNERS VISITED JAPAN, REGARDING HOSPITALITY AND TOURISM FACTORS

### 5.1 Introduction

Toward the Tokyo Olympic Games 2020 in two years ahead, the number of foreign visitors to Japan continues to increase. The number of foreign visitors increased to 28,691 thousand (19.3% increase over the previous year) in 2017. In terms of nationality, the top three countries are China (7,355 thousand), Korea (7,140 thousand), and Taiwan (4,167 thousand). The number of foreign visitors to Japan from East Asia (including Hong Kong added to them) reached 21,291 thousand, closing the total number of 74.2%. From the perspective of economic ripple effects, the total consumption in 2017 was estimated to be 4,416.2 billion yen (an increase of 17.8% from the previous year). By nationality, China is ranked as the first in 1,694.7 billion yen (38.4% of the total) followed by Taiwan's 574.4 billion yen (13.0%), South Korea's 512.6 billion yen (11.6%) and Hong Kong's 341.6 billion yen (7.7%). From the viewpoint of consumption, the proportion of visitors from China and Taiwan is 51.4% of the total, and the importance stands out [44]. On the other hand, the revitalization of local cities is one of the important issues in our country. It is known that the number of foreign tourists coming to local cities is very small compared with those visiting major cities such as Tokyo and Osaka. Governments and local governments have launched various policies such as the Japanese version of DMO to attract inbound to local cities, but it is still at the beginning stage.

In this research, in order to attract foreign tourists to local cities in Japan, we will consider marketing specialized in local cities. In recent years, the marketing method has been drawing attention by using reviews on the Internet review site [31] [45]. Travel related information is famous for travel information sites such as "Trip Advisor" and "Expedia" and bulletin boards such as "Yahoo!." Travelers will write impressions and experiences on various blogs, SNS, travel sites and information sites in various countries. It is useful to understand the impression and evaluation of visitors to the country by collecting and analyzing such reviews [46]. As a typical research objective, review is one piece of new information. Studies and research on the relationship between consumers who exchange reviews and networks (connections) are also conducted.

### 5.2 Methodology

#### 5.2.1 Preliminary Discussion

In this research, the purpose is to investigate what options are available for visitors. Then, we have selected "Hotels" and "Sightseeing spots," which seem to be very important items

for visitors. And we also focused on whether there are any differences depending on nationality when foreign visitors to Japan visit local cities. Especially, Chinese and Taiwanese are important from the marketing point of view. As for the data collection aspect, we selected a regional city in Japan and investigated user reviews of Internet travel sites. The target city was Hamamatsu City, which is located between Tokyo and Osaka, and there is a Shinkansen station. The population is about 820 thousand. Manufacturing and agriculture are important industries. Local governments are actively implementing policies for inbound projects, and international conference halls are also substantial.

Table 40: Survey items of "Hotels"

| Hotel | Facility     |             |            | Restaurant                               | Conference room            | Access to Station |
|-------|--------------|-------------|------------|--|----------------------------|-------------------|
|       | No. of Rooms | Parking lot | Hot spring |  |                            |                   |
| A)    | 211          | available   | n/a        | Breakfast only                           | n/a                        | 3mins walking     |
| B)    | 212          | available   | n/a        | 1 Restaurant (J)                         | 2 rooms (10 seats x 2)     | 13mins walking    |
| C)    | 224          | available   | n/a        | 4 Restaurants (J/Ch/Eur/Tea)             | 4 rooms (total 600 seats)  | 5mins walking     |
| D)    | 322          | available   | n/a        | 4 Restaurants (J/Ch/Eur/Teppanyaki)      | 4 rooms (total 984 seats)  | 3mins walking     |
| E)    | 138          | n/a         | n/a        | 1 Restaurant (J)                         | n/a                        | 2mins walking     |
| F)    | 71           | available   | n/a        | n/a                                      | n/a                        | 0.5mins walking   |
| G)    | 391          | available   | available  | 5 Restaurants (J/Ch/F/Buffer/Tea)        | 4 rooms (total 1070 seats) | 30mins by taxi    |
| H)    | 110          | available   | available  | 1 Restaurant                             | n/a                        | 12mins by train   |
| I)    | 192          | available   | n/a        | 6 restaurants (Jx2/Ch/Buffer/Bar/Lounge) | 6 rooms (total 785 seats)  | 3mins walking     |



Table 41: Survey items of "Sightseeing spots"

| Tourism Resources                                | Overview  |
|--|---|
| 1) Lake Hamanako                                 | 10th biggest lake in Japan. Eel aquaculture is famous.  |
| 2) Hamamatsu Castle<br>Park of Hamamatsu Castle. | Castle constructed in the 15th century.                 |
| 3) Museums etc.                                  | Hamamatsu is famous for automotive/instrument industry. |
| 4) Historic buildings                            | Old station (Tenryu futamata Station) etc.              |
| 5) Temple, Shrine etc.                           | Ryutan temple, Houkou temple etc.                       |
| 6) Nature, Parks etc.                            | Hamanako nature park etc.                               |

### 5.2.2 Data collection

A certain amount of data is necessary to perform data analysis. However, there are a limited number of review data by foreign visitors to Hamamatsu City, which can be collected on the Internet website. Therefore, as shown in Table 40, we collected data on nine hotels where foreigners stay relatively frequently. And review data on six sightseeing spots shown in Table 41, which are relatively frequent by foreigners, were investigated as well. As shown in Table 42, data collection of review data have been performed on several major travel sites, such as "Trip Advisor [47]," "Expedia [48]," "Agoda [49]," "Booking.com [50]" and "Ctrip.com [51]." As for the data collection method, we used "GooSeeker [52]" and "Octoparse [53]" which are Web API software tools. These tools easily realized the data scraping from the web site. The collected multilingual review data were classified in nationalities, such as China, Taiwan, Hong Kong and other nationalities (Korea, Singapore, Thailand, Europe, America, etc.). Samples of the collected data are shown in Table 43. These data include the country and region of visitors, evaluation of the hotel, impression of the hotel, visit time, purpose of stay and comments.

Table 42: Data collection in detail

|  |  |
|--|--|
| Language                                     | English/Chinese/Taiwanese  |
| Number of collected data                     | about 1500   |
| Review data of hotels<br>(Chinese/Taiwanese) | A) Chinese:35/Taiwanese:18<br>B) 16/3<br>C)21/11<br>D)45/17<br>E)21/6<br>F)11/2<br>G)21/0<br>H)10/0<br>I)32/0  |
| Data collection                              | TripAdvisor, <a href="https://www.tripadvisor.com">https://www.tripadvisor.com</a><br>Expedia, <a href="https://www.expedia.com/">https://www.expedia.com/</a><br>Agoda, <a href="https://www.agoda.com/">https://www.agoda.com/</a><br>Booking.com, <a href="https://www.booking.com/">https://www.booking.com/</a><br>Ctrip, <a href="https://www.ctrip.com/">https://www.ctrip.com/</a> |

Table 43 : Sample of collected data (a part) for Hotel D)

| Nationality            | Score | Impression           | Time     | Purpose             | Comment                         |
|------------------------|-------|----------------------|----------|---------------------|---------------------------------|
| unanswered             | 4     | Beautiful Hotel      | May,2017 | Couple Trip         | We stayed here for one night    |
| Suvanajaya, Malaysia   | 4     | 5-star standard      | May,2017 | Trip with Family    | big hotel; my room at 32th      |
| Kuala Lumpur, Malaysia | 4     | Hotel beside station | Jun,2017 | Travel with friends | It is the tallest hotel         |
| Normal, IL             | 5     | Wonderful hotel      | May,2017 | Business Trip       | Very convenient to the station  |
| Hong Kong, China       | 5     | Beautiful view       | Mar,2017 | Trip with family    | The hotel is the highest in     |
| Newberry, UK           | 5     | My favorite hotel    | Mar,2017 | Business Trip       | I have stayed here for 3 nights |

### 5.2.3 Data analysis

For data analysis, freeware of text mining using elemental technology of natural language processing is used, NLPIR [54] (Chinese, Taiwan compatible). This tool can be used for the analysis of nouns, verbs, adjective appearance frequency, keyword extraction, emotion analysis and so on. NLPIR has high operability as a morphological analyzer in Chinese and has many clients including universities, laboratories, banks, and ICT companies. We analyzed the collected data with NLPIR and created an analysis report of

"hotels," "sightseeing spots" and "foods and drinks". The analysis was also made by nationality. In addition, morphological analysis was performed on the entire collected data. The whole sentence, the keyword, the noun, the verb, the appearance frequency of the adjective, and the outline of the emotion analysis result were obtained. In this research, we focused on nouns, verbs, and adjective appearance frequency and emotion analysis results. Then, it is clarified the results of the appearance frequency of nouns, verbs and adjectives.

As for the analysis results, we focused Hotel D), because the number of reviews was the biggest as shown in Table 42. Among 45 Chinese visitors review data, the numbers of nouns extracted by analysis were Hotel (55), Hamamatsu (18), Breakfast (11), Room (10), Location (9), Japan (8), Equipment (8), Geography (8), Sensation (8), and Restaurants (7). Then, in words extracted, we omit words not used for analysis. Words that can be omitted are "Hotel," "Hamamatsu," "Japan," and "Sense." Furthermore, different words representing the same meaning are treated as the same words. For example, even if expressions such as "Location" and "Geography" are different, these words are treated as "Location."

After the treatment mentioned above, the number of the words "location" is 17, as an example. We performed the same treatment to the other words. As a result, in the noun, location (17), breakfast (11), room (10), facility (8), and restaurant (5) were extracted. For the verb, there were service (9), recommend (6), walk (5), and value (3). And for the adjective, there were good (17), advantage (11), convenient (10), and clean (4). It is necessary to consider that there was a large difference in appearance frequency of words due to difference in collected data amount on each survey target. In case of Hotel D), there were 45 reviews and including extracted word of "Hotel" (17) and "Breakfast" (11). In the case of Hotel F), there were 11 reviews, including extracted words of "hotel" (7) and "breakfast" (4). Therefore, it is useful to perform data normalization based on the population of reviews. That is, when data X is given, it is normalized by  $Y = (X - \min) / (\max - \min)$ . As a result, the maximum value is 1, while the minimum value is 0. The value is rounded to two decimal places. These analysis results, which are dedicated Hotel D), are shown in Table 44.

Table 44: Appearance Frequency of words for Hotel D)

| Nouns      | No. of words appearances | After normalization |
|------------|--------------------------|---------------------|
| location   | 17                       | 1.00                |
| breakfast  | 11                       | 0.50                |
| room       | 10                       | 0.42                |
| facility   | 8                        | 0.25                |
| restaurant | 5                        | 0.00                |
| Verbs      | No. of words appearances | After normalization |
| service    | 9                        | 1.00                |
| recommend  | 6                        | 0.60                |
| walk       | 5                        | 0.40                |
| value      | 3                        | 0.00                |
| Adjectives | No. of words appearances | After normalization |
| good       | 17                       | 1.00                |
| advantage  | 11                       | 0.54                |
| convenient | 10                       | 0.46                |
| clean      | 4                        | 0.00                |

Concerning emotion analysis, the proportion of positive emotion and negative one could be evaluated by sentences. In Table 45, the emotion analysis result for Hotel D) is shown. The positive (negative, respectively) is 83.97% (16.03%), which corresponds to 373 (71) words evaluated as "positive" ("negative") in the whole text of reviews written by 45 Chinese visitors.

Table 45 : Emotion analysis results for Hotel D)

| Positive | %      | Negative | %      |
|----------|--------|----------|--------|
| Easy     | 9.97%  | Angry    | 0.10%  |
| Good     | 74.00% | Sad      | 2.52%  |
|          |        | Fear     | 0.75%  |
|          |        | evil     | 11.00% |
|          |        | shock    | 1.26%  |
| Total    | 83.97% | Total    | 16.03% |

The results of emotion analysis for the reviews by Chinese visitors in nine hotels are shown in Figure 9. The most positive value is 91.36% of Hotel B), and the lowest value is 68.82%.of Hotel H).

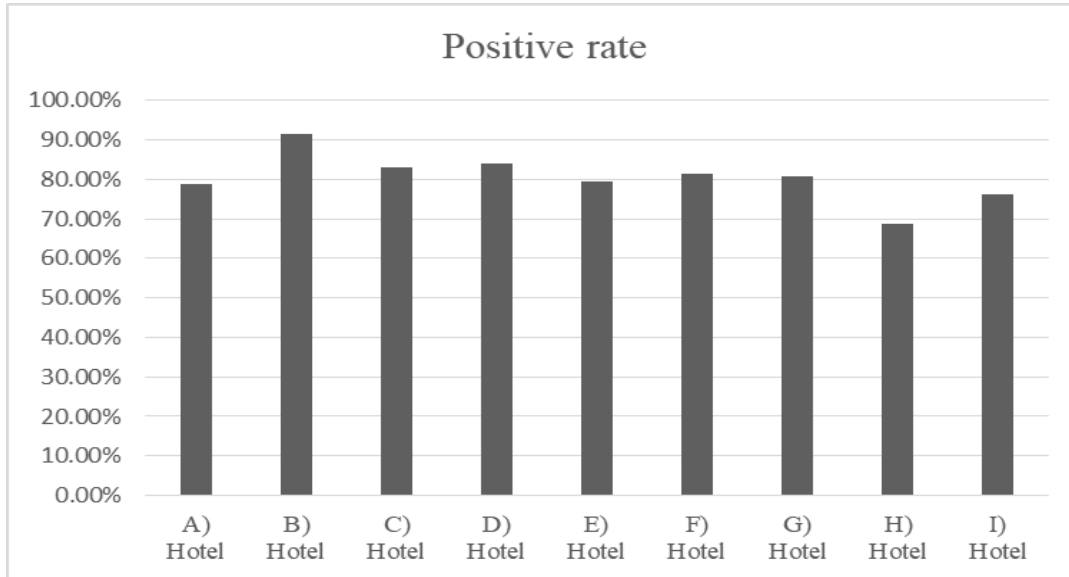


Figure 9 : Emotion Analysis Results

### 5.3 Results

#### 5.3.1 Features of Chinese visitor's interest in a hotel

The result of the appearance frequency after normalization for the extracted words is shown in Table 46. The number "0" in the table means the word was not extracted. We found several features of Chinese visitors to Hamamatsu city in this analysis. Chinese visitor's concerns about the hotel found to be "room (0.68)," "location (0.34)," and "breakfast (0.3)." It is clarified that the room is the most expected factor. The next point is for the visitors who stayed at Hotel G) and H). It is important for them to take "Hot spring." "Hot spring" attracts certain foreign visitors. For Hotel B), the emotion analysis gave the highest score (91.36%) in nine hotels, the "employee" was found to be an important point.

Table 46 : Appearance frequency after normalization for Chinese visitors

| Hotel | Breakfast | Room | Price | Station | Location | Facility | Employee | Hot Spring |
|-------|-----------|------|-------|---------|----------|----------|----------|------------|
| A)    | 0.43      | 1.00 | 0.14  | 1.00    | 0.43     | 0        | 0        | 0          |
| B)    | 0.27      | 0.91 | 0.36  | 0       | 0        | 0        | 1.00     | 0          |
| C)    | 0.10      | 0.50 | 0     | 0       | 0        | 1.00     | 0        | 0          |
| D)    | 0.50      | 0.42 | 0     | 0       | 1.00     | 0.25     | 0        | 0          |
| E)    | 0         | 0.29 | 0     | 1.00    | 0.29     | 0        | 0        | 0          |
| F)    | 0.40      | 1.00 | 0     | 0.40    | 0.40     | 0        | 0        | 0          |
| G)    | 0         | 0.60 | 0     | 0       | 0        | 0.38     | 0        | 1.00       |
| H)    | 0         | 0.67 | 0     | 0       | 0        | 0        | 0        | 1.00       |
| I)    | 1.00      | 0.70 | 0     | 0.10    | 0.90     | 0        | 0        | 0          |
| Ave   | 0.30      | 0.68 | 0.06  | 0.28    | 0.34     | 0.18     | 0.11     | 0.22       |

### 5.3.2 Comparison of interests between Chinese and Taiwanese for hotel

The analysis results of the Chinese and Taiwanese about Hotel A) and D) are shown in Tables 47 and 48. Chinese and Taiwanese have many common characteristics. In Hotel A), they are interested in the same factors, such as "room," "station," "location" etc. However, although Chinese were interested in "price," it is not much important concern by Taiwanese. They are interested in "restaurants," "parking lots," etc. In case of Hotel D), they are also interested in "room," and "location." But, it is different that Taiwanese value "night view" and "look", but Chinese do not.

It is estimated this tendency that since Taiwanese visitors would come by private tours so called FIT (Foreign Individual Tour), they have to make an arrangement for their parking lot and restaurant by themselves. This kind of tendency was also reported by JTB Corporation who is the biggest travel agency in Japan [55]. As Chinese visitors would come by group tours, all necessary accommodations are arranged by tour organizers. Taiwanese would reserve their accommodation by themselves, so they can select the room located in the high position. It is an interesting finding to understand the difference between Chinese and Taiwanese.

Table 47 : Comparison Chinese and Taiwanese for Hotel A)

| Nationality          | Chinese  | Taiwanese  |
|----------------------|--|--|
| Evaluation score     | average 4.73   | average 4.53   |
| Score distribution   | No. of data:35<br>5point:22<br>4-5point:10<br>3-4point:3                             | No. of data:18<br>5point:5<br>4-5point:11<br>3-4point:2  |
| Appearance frequency |  |  |
| Nouns                | room:(1.00)<br>station:(1.00)<br>location:(0.43)<br>price:(0.14)<br>breakfast:(0.43) | room:(1.00)<br>station:(0.57)<br>location:(0.57)<br>restaurant:(0.43)<br>breakfast:(0.14)<br>parking lots:(0.14) |
| Verbs                | service:(1.00)<br>recommend:(1.00)   | service:(1.00)<br>offer:(0.50)<br>shopping:(0.00)<br>examine:(0.00)  |
| Adjective            | good:(0.71)<br>convenient:(1.00)<br>clean:(0.29)<br>optimal:(0.00)                   | comfortable:(1.00)<br>kind:(0.60)<br>clean:(0.60)<br>convenient:(1.00)   |

Table 48:Comparison Chinese and Taiwanese for Hotel D)

| Nationality          | Chinese  | Taiwanese  |
|----------------------|--|--|
| Evaluation score     | average 4.48   | average 4.83   |
| Score distribution   | No. of data:45<br>5point:23<br>4-less 5point:19<br>3-less 4point:3                         | No. of data:18<br>5point:13<br>4-less 5point:5<br>3-less 4point:1                            |
| Appearance frequency |  |  |
| Nouns                | location:(1.00)<br>breakfast:(0.50)<br>room:(0.42)<br>facility:(0.25)<br>restaurant:(0.00) | room:(1.00)<br>location:(0.83)<br>night view:(0.50)<br>restaurant:(0.33)<br>breakfast:(0.00) |
| Verbs                | service:(1.00)<br>recommend:(0.60)<br>walk:(0.40)<br>value:(0.00)                          | service:(1.00)<br>look:(0.71)<br>eat:(0.14)<br>walk:(0)                                      |
| Adjective            | good:(1.00)<br>advantage:(0.54)<br>convenient:(0.46)<br>clean:(0.00)                       | good:(1.00)<br>advantage:(0.10)<br>clean:(0.10)<br>convenient:(0.00)                         |

### 5.3.3 Comparison between Chinese/Taiwanese/Hong Kong and Other nationalities for sightseeing spots

Table 49 shows the emotion analysis results for sightseeing spots by nationality. First, it is clear that East Asian (including Chinese, Taiwanese, and Hong Kong) scores were always higher than other nationalities. As a further feature, there are no major differences between East Asian people and the other nationality for the three parks including "Hamamastu Castle," while about 10% difference has been observed for museums, beaches, and temples. Knowing the difference in feelings to sightseeing spots due to the difference in nationality is an indication of the design of appropriate tourist route planning.

Table 49: Emotion analysis results for sightseeing spots by nationality

| Place                                   | Chinese, Taiwanese, Hong Kong | Other nationalities (Australia, India, Singapore, Canada, etc.) | $\Delta$ |
|---|-------------------------------|---|----------|
| Hamamatsu Air Park                      | 76.19%                        | 75.23%  | 0.96%    |
| Hamamatsu Castle                        | 77.52%                        | 75.15%  | 2.37%    |
| Hamamatsu Flower Park                   | 85.90%                        | 82.22%  | 3.68%    |
| Hamamatsu Museum of Musical Instruments | 76.14%                        | 66.10%  | 10.04%   |
| Nakatajima Beach                        | 80.65%                        | 71.26%  | 9.39%    |
| Ryotan-ji Temple                        | 88.81%                        | 78.24%  | 10.57%   |

## 5.4 Discussion

### 5.4.1 Insight of result of the analysis

This study revealed that the interest and expectation for hotels and sightseeing spots are not always the same by nationality. As shown in Table 46, "room," "location," and "breakfast" are important for Chinese tourists. Therefore, in order to increase the satisfaction level of Chinese visitors, it is considered firstly the easiest way is to raise the quality of "breakfast." Also, it may be difficult to change the "location" of the hotel, but it is possible to renovate the "room." Furthermore, there is a possibility that improvement of transportation to the "station" and improvement of the service of "employee" could increase the evaluation from Chinese customers. According to the comparison between Chinese and Taiwanese tourists, shown in Table 47, the Taiwanese evaluation score was much severe than the Chinese's. It seems that quality of "Room" and "Services" for both Chinese and Taiwanese are the most important things. They are expecting good quality levels of them. In addition, it has to be noted that Chinese tourists are "price" conscious,



while Taiwanese tourists may want to be supported for their private trips to Japan. The different characteristics of Chinese tourists and other nationality's ones as mentioned above are the analysis results obtained from the review for Hamamatsu City of the Internet Web site. The same result may not be always obtained in other cities in Japan. However, by collecting and analyzing such reviews on the Internet, it is possible to understand the awareness of foreign tourists in local cities as well, and to clarify appropriate marketing approaches for the targeted foreign tourists.

#### 5.4.2 Profitable Strategy of Local Cities

If a Chinese tourist would be a target customer, it is most effective to provide a clean room and good breakfast at reasonable prices. It is also important for the hotel to provide Taiwanese tourists with comfortable service and space for rooms and restaurants. In addition, various information related to travel may be pleased. In terms of sightseeing spots, tourists from China and Taiwan are interested in visiting temples and shrines. Also, parks are expected sightseeing spots for guests of all nationalities. Proposals for services that take into account the characteristics according to nationality may produce high profits.

Continuity is the most important in business and it could build a stable business base by increasing customer loyalty and repeat rate. For customers, it is important to enhance the quality of service and provide it at reasonable prices.

#### 5.5 Summary

In this chapter, we collected and analyzed the review data of foreign travelers visiting Japan as a basic knowledge to attract foreign visitors to local cities and showed the results of the traveler's emotional analysis. Reviews on Hamamatsu City in Shizuoka prefecture, a regional city in Japan, from travel sites on the Internet by using Web API tools. Target data were in the categories of "hotel" and "tourist spots" in multilingual in Chinese and English. And the word appearance frequency and the result of emotion analysis were obtained from review data by using NLPIR which is a morphological analysis tool. Then, knowledge discovery was conducted from the analysis result. As a result, the characteristics and differences of foreign travelers visiting local cities by nationality are clarified. By the results obtained here, local cities can increase the marketing ability to attract foreign tourists. As a result, it may lead to the revitalization of the local areas.

## CHAPTER VI PARTICIPANT'S EXPECTATION ANALYSIS BY NATIONALITY TO EXPAND PARTICIPANTS AS AN ADDED VALUE FOR ORGANIZERS AND PARTICIPANTS

### 6.1 Introduction

As mentioned in Chapter 3, MICE business is known to have an effect on regional revitalization because of its high economic ripple effect. And as described in Chapter 5, the economic effect was estimated to exceed 1 trillion yen in total. In such an environment, the government makes various policies and investments, and local governments develop inbound businesses in cooperation with industry. International conferences are an effective way to attract foreign tourists to local cities.

To attract international conferences, it is important to provide unique venues and services that take advantage of local characteristics. And it is also important to provide added value to organizer and participant. That is, to support organizer to gather participants by providing the optimal service to participants' expectation. In order to realize these things, it is important to learn what is the participant, deeply and carefully.

Matsuo *et al.* investigated the differences in motivation and satisfaction among student attendees and non-student attendees in the conference [22]. However, at the International Science Council, no research has focused on motivation and expectation based on multinational and gender.

In this chapter, we analyze the questionnaire survey of participants at international conferences, in order to know the participants deeply, from the viewpoint of different attribute, which is a nationality and gender.

### 6.2 Questionnaire Survey

A questionnaire survey was conducted at three academic international conferences held in Hamamatsu, Shizuoka, Japan in July 2017, Kanazawa, Ishikawa, Japan in Nov. 2017, and Yonago, Tottori, Japan in July 2018. The total number of respondents are 263 from 32 countries, including 96 Japanese. Since each questionnaire has slight difference from the others, we focused on the several questions among all. The questionnaire is asked about three elements; Section 1: "About international conferences," Section 2: "About tourism in Japan," and Section 3: "Questions about respondents themselves." In this chapter, we focused on the expectations of International Conference held in Japan shown in Table 50 and the intention of Japan visit shown in Table 51. Regarding the answer method, it may be one choice or multiple choices form different choices. On the other case, questions are evaluated in 5 grades to measure the level of respondents. (1: least important/least agreed, 2: less important/less agreed, 3: neutral, 4 more important/more

agreed, 5: most important most agreed). Further, Table 52 is a question about respondent's personal information.

Table 50: Question items for Expectation to the international conferences held in Japan

| #  | Questions   | Answer items                                 |
|----|---|--|
| Q1 | What kind of social events do you expect? (Multiple answers allowed)<br>*Same as Q3 shown in Table 1  | 1. Banquet (dinner party)                    |
|    |   | 2. Welcome Reception Party                   |
|    |   | 3. Farewell Reception Party                  |
|    |   | 4. Coffee Break                              |
|    |   | 5. Excursion                                 |
|    |   | 6. Attraction (traditional dance show, etc.) |
| Q2 | What kind of venue do you expect for the international conference held in Japan? (Multiple answers allowed)<br>*Same as Q13 shown in Table 3      | 1. Modern conference hall                    |
|    |   | 2. Museums                                   |
|    |   | 3. Historic buildings                        |
|    |   | 4. Shrines / Temples / Churches              |
|    |   | 5. Hotels                                    |
| Q3 | Are you interested in international conference held in local cities other than Tokyo, Osaka and Nagoya in Japan?<br>*Same as Q14 shown in Table 3 | 1. least important / least agreed            |
|    |   | 2. less important / less agreed              |
|    |   | 3. neutral                                   |
|    |   | 4. more important / more agreed              |
|    |   | 5. most important / most agreed              |

Table 51: Question items of Intention of visiting Japan

| #   | Questions  | Answer items                      |
|-----|--|-----------------------------------|
| Q4  | Do you want to visit Japan for your sightseeing travel?<br><br>*Same as Q16 in Table 4   | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |
| Q5  | Do you want to visit Japan to attend an international conference?<br><br>*Same as Q17 in Table 4                                   | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |
| Q6  | Convenient transportation availability to Japan is important for you to travel to the conference venue.<br>*Same as Q18 in Table 4 | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |
| Q7  | How is the convenience of travel from your country to Japan?<br><br>*Same as Q19 in Table 4  | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |
| Q8  | What do you want to experience to eat Japanese food during your stay in Japan?<br><br>*Same as Q20 in Table 4                      | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |
| Q9  | Do you expect to buy good Japanese traditional souvenir?<br><br>*Same as Q21 in Table 4  | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |
| Q10 | Do you want to make a time to have sightseeing in Japan after/before the conference?<br><br>*Same as Q22 in Table 4                | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |
| Q11 | Do you want to visit local city in Japan after/before the conference?<br><br>*Same as Q23 in Table 4                               | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |
| Q12 | How do you think the importance of cost of sightseeing in Japan?<br><br>*Same as Q24 in Table 4                                    | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |
| Q13 | Do you expect a dinner party in international conference held in Japan?<br><br>*Same as Q25 in Table 4                             | 1. least important / least agreed |
|     |  | 2. less important / less agreed   |
|     |  | 3. neutral                        |
|     |  | 4. more important / more agreed   |
|     |  | 5. most important / most agreed   |

Table 52: Question items of Personal information

| #   | Items  | Choices   |
|-----|--|---|
| Q14 | Age<br>*Same as Q26 shown in Table 5           | 1. 20's    2. 30's    3. 40's    4. 50's<br>5. 60's    6. 70's and over   |
| Q15 | Gender<br>*Same as Q27 shown in Table 5        | 1. Female    2. Male    3. Other  |
| Q16 | Nationality<br>*Same as Q28 shown in Table 5   | ( _____ )   |
| Q17 | Occupation<br>*Same as Q29 shown in Table 5    | 1. Company Director<br>2. Company Manager<br>3. Company Employee<br>4. Company Temporary employee<br>5. Assistant Professor<br>6. Lecturer<br>7. Associate professor<br>8. Full Professor<br>9. School Officer<br>10. Graduate Student<br>11. Undergraduate Student<br>12. Others ( _____ ) |
| Q18 | Annual income<br>*Same as Q30 shown in Table 5 | 1. US\$10,000 or less<br>2. US\$10,000-29,999<br>3. US\$30,000-49,999<br>4. US\$50,000-99,999<br>5. US\$100,000 or over   |

### 6.3 Respondents Attributes

Concerning respondents attributes, there were 263 respondents, including 96 Japanese, in 32 countries. Respondent profiles are shown in Table 53 to 57. Table 53 shows the age distribution of respondents was 27.4% in the 20s, 24.0% in the 30s, 26.2% in the 40s, 12.5% in the 50s, 4.6% in the 60s and 4.6% in the 70's and over.

The gender distribution is shown in Table 54. 21.3% of respondents were female, and 73.8% of them were male.

The distribution of nationality is shown in Table 55. 42.2% of the respondents were from Asian countries (China, Indonesia, Korea, Malaysia, Philippine, Taiwan, Thai and Tibet), 36.5% were Japanese, and 14.4% were participants from non-Asian countries. The distribution of occupation is shown in Table 55. 81.7% of the respondents were faculty members, and 6.8% were come from company domains.

Table 53 : Q14 Age distribution

| # | Age           | No. of respondents | %     |
|---|---------------|--------------------|-------|
| 1 | 20's          | 72                 | 27.4% |
| 2 | 30's          | 63                 | 24.0% |
| 3 | 40's          | 69                 | 26.2% |
| 4 | 50's          | 33                 | 12.5% |
| 5 | 60's          | 12                 | 4.6%  |
| 6 | 70's and over | 12                 | 4.6%  |
| 7 | Unanswered    | 2                  | 0.8%  |

Table 54 : Q15 Gender distribution

| # | Gender     | No. of respondents | %     |
|---|------------|--------------------|-------|
| 1 | Female     | 56                 | 21.3% |
| 2 | Male       | 194                | 73.8% |
| 3 | other      | 1                  | 0.4%  |
| 4 | Unanswered | 12                 | 4.6%  |

Table 55 : Q16 Nationality distribution

| #  | Country    | No. of respondents | %     |
|----|------------|--------------------|-------|
| 1  | Australia  | 1                  | 0.4%  |
| 2  | Austria    | 2                  | 0.8%  |
| 3  | Botswana   | 1                  | 0.4%  |
| 4  | Canada     | 2                  | 0.8%  |
| 5  | China      | 23                 | 8.7%  |
| 6  | Croatia    | 1                  | 0.4%  |
| 7  | Danish     | 1                  | 0.4%  |
| 8  | France     | 1                  | 0.4%  |
| 9  | German     | 4                  | 1.5%  |
| 10 | Greek      | 1                  | 0.4%  |
| 11 | Hungary    | 1                  | 0.4%  |
| 12 | India      | 4                  | 1.5%  |
| 13 | Indonesia  | 4                  | 1.5%  |
| 14 | Iran       | 1                  | 0.4%  |
| 15 | Italy      | 2                  | 0.8%  |
| 16 | Japan      | 96                 | 36.5% |
| 17 | Korea      | 3                  | 1.1%  |
| 18 | Luxembourg | 1                  | 0.4%  |
| 19 | Macedonia  | 2                  | 0.8%  |
| 20 | Madagascar | 1                  | 0.4%  |
| 21 | Malaysia   | 1                  | 0.4%  |
| 22 | Mexico     | 1                  | 0.4%  |
| 23 | Norway     | 1                  | 0.4%  |
| 24 | Philippine | 1                  | 0.4%  |
| 25 | Russia     | 3                  | 1.1%  |
| 26 | Slovenia   | 1                  | 0.4%  |
| 27 | Spain      | 2                  | 0.8%  |
| 28 | Sri Lanka  | 1                  | 0.4%  |
| 29 | Taiwan     | 71                 | 27.0% |
| 30 | Thai       | 8                  | 3.0%  |
| 31 | Tibet      | 1                  | 0.4%  |
| 32 | USA        | 2                  | 0.8%  |
| 33 | Unknown    | 1                  | 0.4%  |
| 34 | Unanswered | 17                 | 6.5%  |
|    | Total      | 263                | 100%  |

Table 56: Occupation distribution

| #  | Occupation                 | No. of respondents | %     |
|----|----------------------------|--------------------|-------|
| 1  | Company Director           | 3                  | 1.1%  |
| 2  | Company manager            | 6                  | 2.3%  |
| 3  | Company employee           | 8                  | 3.0%  |
| 4  | Company temporary employee | 1                  | 0.4%  |
| 5  | Assistant professor        | 24                 | 9.1%  |
| 6  | Lecturer                   | 16                 | 6.1%  |
| 7  | Associate professor        | 46                 | 17.5% |
| 8  | School officer             | 3                  | 1.1%  |
| 9  | Full professor             | 48                 | 18.3% |
| 10 | Graduate student           | 70                 | 26.6% |
| 11 | Undergraduate student      | 8                  | 3.0%  |
| 12 | others                     | 13                 | 4.9%  |
| 13 | Unanswered                 | 17                 | 6.5%  |

The annual income distribution is shown in Table 57.

Table 57: Annual income distribution

| # | Income range        | No. of respondents | %     |
|---|---------------------|--------------------|-------|
| 1 | US\$10,000 or less  | 69                 | 26.2% |
| 2 | US\$10,000-29,999   | 44                 | 16.7% |
| 3 | US\$30,000-49,999   | 46                 | 17.5% |
| 4 | US\$50,000-99,999   | 57                 | 21.7% |
| 5 | US\$100,000 or over | 16                 | 6.1%  |
| 6 | Unanswered          | 31                 | 11.8% |

#### 6.4 Motivation Analysis

Tables 58 to 61 show the answer results for Q1 and Q2 shown in Table 50. If the number of answer X was given, frequency was calculated by  $(X / \text{Total number of respondents})$ . Deviation was obtained by  $|\text{Frequency} - \text{Average}|$ . This question is for all respondents, including Japanese participants. Regarding the answer method, it may be one choice or multiple choices form different choices.

In the results of Q1-1 Q1-2, and Q1-4 shown in Table 58, it is clear that Non-Asian participants expect more social event such as Banquet (dinner party): 0.838, Welcome Reception Party: 0.595 and Coffee break: 0.757 than other nationality participants. And Japanese participants expect less Welcome Reception Party: 0.281, Excursion: 0.156 and Attraction: 0.063 than other participants from foreign countries. From the Gender point of view, shown in Table 58, it is no big difference between Female and Male. In order to



increase the appeal of the international conference, it was found that it is important to enhance banquet (dinner party) and coffee break, and Asian participants were also interested in excursions and attractions.

Table 58: Expectation to the social event in Nationality

| #    | Answer Items             | Measure | Asian | Non-A | Japan | Ave   |
|------|--------------------------|---------|-------|-------|-------|-------|
| Q1-1 | Banquet (dinner party)   | Freq    | 0.652 | 0.838 | 0.635 | 0.673 |
|      |                          | Dev     | 0.022 | 0.164 | 0.038 |       |
| Q1-2 | Welcome Reception Party  | Freq    | 0.491 | 0.595 | 0.281 | 0.424 |
|      |                          | Dev     | 0.067 | 0.170 | 0.143 |       |
| Q1-3 | Farewell Reception Party | Freq    | 0.116 | 0.135 | 0.115 | 0.118 |
|      |                          | Dev     | 0.002 | 0.017 | 0.004 |       |
| Q1-4 | Coffee Break             | Freq    | 0.598 | 0.757 | 0.563 | 0.608 |
|      |                          | Dev     | 0.010 | 0.149 | 0.046 |       |
| Q1-5 | Excursion                | Freq    | 0.286 | 0.216 | 0.156 | 0.224 |
|      |                          | Dev     | 0.061 | 0.008 | 0.068 |       |
| Q1-6 | Attraction               | Freq    | 0.259 | 0.216 | 0.063 | 0.176 |
|      |                          | Dev     | 0.083 | 0.041 | 0.113 |       |

Table 59: Expectation to the social event in Gender

| #    | Answer Items             | Measure | Female | Male  | Ave.  |
|------|--------------------------|---------|--------|-------|-------|
| Q1-1 | Banquet (dinner party)   | Freq    | 0.655  | 0.687 | 0.680 |
|      |                          | Dev     | 0.025  | 0.007 |       |
| Q1-2 | Welcome Reception Party  | Freq    | 0.491  | 0.405 | 0.424 |
|      |                          | Dev     | 0.067  | 0.019 |       |
| Q1-3 | Farewell Reception Party | Freq    | 0.145  | 0.113 | 0.120 |
|      |                          | Dev     | 0.025  | 0.007 |       |
| Q1-4 | Coffee Break             | Freq    | 0.564  | 0.615 | 0.604 |
|      |                          | Dev     | 0.040  | 0.011 |       |
| Q1-5 | Excursion                | Freq    | 0.255  | 0.221 | 0.228 |
|      |                          | Dev     | 0.027  | 0.007 |       |
| Q1-6 | Attraction               | Freq    | 0.218  | 0.154 | 0.168 |
|      |                          | Dev     | 0.050  | 0.014 |       |

In Q2-1, it was clear that Modern conference hall:0.604 is the most expected venue in all nationality, especially that tendency is clear to the Non-Asian participants:0.703. In

Q2-2 and Q2-3, Japanese participants have less interest in the Museums: 0.219 and Historic buildings: 0.344 than Asian and Non-Asian participants. In Q2-4, Shrines/Temples/Churches: 0.155 is least attractive for all nationality. From Gender comparison, it was found that Female was less interested in the Modern conference hall: 0.509 than Male: 0.636.

Table 60: Expectation to the venue in Nationality

| #    | Answer Items                 | Measure | Asian | Non-A | Japan | Ave   |
|------|------------------------------|---------|-------|-------|-------|-------|
| Q2-1 | Modern conference hall       | Freq    | 0.571 | 0.703 | 0.604 | 0.604 |
|      |                              | Dev     | 0.033 | 0.099 | 0.000 |       |
| Q2-2 | Museums                      | Freq    | 0.384 | 0.351 | 0.219 | 0.314 |
|      |                              | Dev     | 0.070 | 0.037 | 0.096 |       |
| Q2-3 | Historic buildings           | Freq    | 0.527 | 0.514 | 0.344 | 0.453 |
|      |                              | Dev     | 0.074 | 0.060 | 0.109 |       |
| Q2-4 | Shrines/Temples/<br>Churches | Freq    | 0.170 | 0.189 | 0.125 | 0.155 |
|      |                              | Dev     | 0.015 | 0.034 | 0.030 |       |
| Q2-5 | Hotels                       | Freq    | 0.321 | 0.432 | 0.438 | 0.384 |
|      |                              | Dev     | 0.062 | 0.049 | 0.054 |       |

Table 61: Expectation to the venue in Gender

| #    | Answer Items                    | Measure | Female | Male  | Ave.  |
|------|---------------------------------|---------|--------|-------|-------|
| Q2-1 | Modern conference hall          | Freq    | 0.509  | 0.636 | 0.608 |
|      |                                 | Dev     | 0.099  | 0.028 |       |
| Q2-2 | Museums                         | Freq    | 0.327  | 0.313 | 0.316 |
|      |                                 | Dev     | 0.011  | 0.003 |       |
| Q2-3 | Historic buildings              | Freq    | 0.436  | 0.456 | 0.452 |
|      |                                 | Dev     | 0.016  | 0.004 |       |
| Q2-4 | Shrines / Temples /<br>Churches | Freq    | 0.109  | 0.159 | 0.148 |
|      |                                 | Dev     | 0.039  | 0.011 |       |
| Q2-5 | Hotels                          | Freq    | 0.400  | 0.385 | 0.388 |
|      |                                 | Dev     | 0.012  | 0.003 |       |

Responses from Q3 to Q13 were analyzed from the perspectives of nationality and gender. The analysis was performed using the Mann-Whitney U test. "p values," which were less than "0.05" are marked by "\*".

Table 62 shows the results of Nationality "Asian/Non-Asian". Asian participants expected significantly from "Convenience of travel to Japan," "Traditional souvenir," "After convention of sightseeing" and "After convention at local city."

Table 62 : Expectation of participants; Nationality "Asian/Non-Asian"

| #   | Question items  | Asian | Non-A | p     |
|-----|---|-------|-------|-------|
| Q3  | Interest of international conference held in local city | 3.76  | 3.53  | 0.16  |
| Q4  | Sightseeing travel to Japan                             | 4.38  | 4.07  | 0.26  |
| Q5  | International conference held in Japan                  | 4.25  | 4.12  | 0.49  |
| Q6  | Importance of transportation                            | 4.43  | 4.27  | 0.29  |
| Q7  | Convenience of travel to Japan                          | 4.26  | 3.73  | *0.01 |
| Q8  | Japanese food   | 4.44  | 4.15  | 0.08  |
| Q9  | Traditional souvenir                                    | 3.99  | 3.56  | *0.03 |
| Q10 | After convention of sightseeing                         | 4.33  | 3.93  | *0.03 |
| Q11 | After convention at local city                          | 4.25  | 3.88  | *0.04 |
| Q12 | Importance for cost of sightseeing                      | 4.06  | 3.98  | 0.50  |
| Q13 | Expect for dinner party                                 | 4.04  | 3.86  | 0.43  |

Table 63 shows the results of Gender "Male/Female". There were no item, whose "p value" was less than "0.05". There were no significant difference.

Table 63 : Expectation of participants; Gender "Male/Female"

| #   | Question items  | Male | Female | p    |
|-----|---|------|--------|------|
| Q3  | Interest of international conference held in local city | 3.74 | 3.55   | 0.26 |
| Q4  | Sightseeing travel to Japan                             | 4.28 | 4.43   | 0.76 |
| Q5  | International conference held in Japan                  | 4.17 | 4.35   | 0.49 |
| Q6  | Importance of transportation                            | 4.35 | 4.50   | 0.71 |
| Q7  | Convenience of travel to Japan                          | 4.12 | 4.21   | 0.99 |
| Q8  | Japanese food   | 4.32 | 4.41   | 0.81 |
| Q9  | Traditional souvenir                                    | 3.86 | 4.10   | 0.30 |
| Q10 | After convention of sightseeing                         | 4.25 | 4.36   | 0.59 |
| Q11 | After convention at local city                          | 4.15 | 4.28   | 0.66 |
| Q12 | Importance for cost of sightseeing                      | 4.00 | 4.13   | 0.46 |
| Q13 | Expect for dinner party                                 | 3.94 | 4.05   | 0.87 |

It could be seen that the expectations of the participants are not limited to the conference program. Participants from Asia in particular felt the convenience of traveling to Japan, and found that they were looking forward to sightseeing and shopping/souvenirs before and after the conference.

## 6.5 Discussion

### 6.5.1 Insight of motivation analysis

Concerning results for expectation to the social event shown in Table 58 and 59, we found that Non-Asian participants expect more social event such as Banquet (dinner party), Welcome Reception Party, and Coffee break than other nationality ones. And Asian participants except Japanese expect much for Excursion and Attraction. From the Gender point of view, shown in Table 59, it is no big difference between Female and Male.

In the results of the expectation to the venue shown in Table 60 and 61, it was clear that Modern conference hall was the most expected venue in all nationality, especially for the Non-Asian participants. Japanese participants have less interest in the Museums and Historic buildings than foreign participants. It is remarkable that Shrines/Temples/Churches that Japanese feel the value were the least attractive for all nationality. From gender comparison, it was found that Female was less interested in the venue than Male.

Concerning results for Q3 to Q13 shown in Table 62 and 63, Asian participants expected significantly from "Convenience of travel to Japan," "Traditional souvenir," "After convention of sightseeing" and "After convention at local city." And there was no significant difference in gender for expectation.

### 6.5.2 Elements of attractive international convention

From the social event program point of view, if the organizer of the international conference wishes to answer the expectations of the participants, it is considered that it is important to enhance banquet (dinner) and coffee breaks. These social events are more expected by all participants. If you want to attract more Asian participants, it would be better to propose excursions and/or attractions that are touristic events. They are very interested in the sightseeing in Japan.

In terms of the conference venue, it is found that Modern Conference Hall was the most expected by all participants. Location of venue is also important. It is important for them the convenience of transportation. On the other hand, Shrines/Temples/Churches were the least expected by all of them.

These findings could be useful for the organizer to make a successful convention planning for the participants.

## 6.6 Summary

In this chapter, we analyzed the questionnaire survey conducted at the international convention held in Japan to know what is interest and expect of the participants to the convention. Especially, we focused on the social event program and venue. Similar results were obtained from the same questionnaire analysis, described in Chapter III and Chapter IV.

From planning of the international convention point of view, the venue is one of the most important elements to attract participants. And social events are also indispensable programs to increase the satisfaction of participants. Therefore, in this survey, we discussed for what is the interest and expectation by comparison in nationality and gender.

As a result, we found some trends in the difference of nationality between Asian and Non-Asian. On the other hand, there was no clear difference in gender. These knowledge could help to organizer to make a planning of attractive convention.

## CHAPTER VII CONCLUSION

### 7.1 Analysis results and findings

#### 7.1.1 "Logistics" perspective

From the viewpoint of "Logistics," some characteristics were revealed. First, half of the participants prefer a "Modern conference hall" with good access within an hour from the airport. Furthermore, even with access from 1 to 3 hours from the airport, "Historic buildings" and "Museums" are preferred by about half of the participants as a venue.

On the other hand, participants have little interest in "Shrines/Temples" as a venue. In addition, 64% of participants are planning to visit Japan before and/or after the conference.

As a result of analysis using the chi-square test, the Cramer correlation coefficient exceeded 0.25, indicating that "Japanese and foreign participants are related to the venue and prefecture/cities." The other factors, such as Academic category, city size, were found to be almost unrelated.

The "University / Research institute" and "Modern Conference Hall" exceeded expectations. From this result, "University/Research institute" and "Modern Conference Hall" are considered standard options.

It also became clear that specific places and venues performed significantly better than expected. They are "Museum" (Hebei, Sakura, Seto, Dazaifu), "Historic Building" (Yokohama), "Shrine/ Temple" (Nara), etc.

#### 7.1.2 "Enhancing conference programs and participant experience" perspective

From the viewpoint of "Enhancing conference programs and participant experience," several characteristics were revealed. The top four purposes of participating international conferences are "Educational purposes," "Presentation at international conferences," "Opportunities for Networking," and "Interesting conference program." Also, it was clarified that the events expected during the international conference were "Coffee Break," "Banquet (Dinner Party)" and "Welcome Reception Party." However, "Farewell Reception Party" is not expected much. Furthermore, it was found that "Excursion" and "Attraction" were also expected events for foreign participants.

If the organizers of international conferences strengthen these events and actively notify them, there is a possibility that the satisfaction of foreign participants will be improved.

### 7.1.3 "Hospitality / Tourism" perspective

In terms of "Hospitality/Tourism," we focused on Chinese and Taiwanese. Because, the number of review data collected in this analysis was relatively large. In addition, the number of Chinese and Taiwanese visitors to Japan in 2017 was ranked the 1st and the 3rd in the statistics of foreigners visiting Japan by nationality [44]. Analysis result showed that interest and expectations for hotels and tourist destinations were not the same depending on nationality. First, according to the comparison between Chinese tourists and Taiwanese tourists, there were difference between them.

Chinese and Taiwanese have many common characteristics. In Hotel A), they are interested in the same factors, such as "room," "station," "location" etc. However, although Chinese were interested in "price," it is not much important concern by Taiwanese. They are interested in "restaurants," "parking lots," etc. In case of Hotel D), they are also interested in "room," and "location." But, it is different that Taiwanese value "night view" and "look", but Chinese do not. It is estimated this tendency that since Taiwanese visitors would come by private tours, they have to make an arrangement for their "parking lot," "restaurant," and "room" by themselves. The quality of "Room" and "Service" is important for both Chinese and Taiwanese, and they expect a high level of quality. Improving the service of "Employees" may increase the reputation of customers.

On the other hand, regarding tourism spots, both Chinese and Taiwanese are interested in visiting temples and shrines. The park was a tourist spot expected for guests of all nationalities.

### 7.1.4 "New value for organizers and participants" perspective

The following matters were clarified regarding the expected venue, events and tourism according to the attributes of the participants. There are no major differences in the expectations of the venue depending on nationality and gender. "Modern Conference Hall" is the most anticipated venues and "Shrines/Temples" where Japanese people feel value are the least popular. "Museums" and "Historical Buildings" are relatively popular with foreigners. There were some characteristics about the expectation of event. Participants from Asia are highly interested in events such as "Excursions" and "Attractions." On the other hand, non-Asian participants have high expectations for social events, such as "Dinner Party," "Welcome Reception Party," and "Coffee Break." As for interest in tourism, participants from Asia are more interested in before/after convention "Tourism," "Shopping" and "Traditional souvenirs" than non-Asian participants.

When a local city makes proposals to the organizer to expand participants and improve profits, it is possible to consider sightseeing tours and services that utilize local tourism resources and special products according to the attributes of the conference participants.

## 7.2 General Conclusion

When a local city would like to make a proposal of their "Product" to the organizer, it is possible to prepare the proposal with better value by fully understanding the expectations of the participants. The factors to be considered for this are as follows.

First, in terms of "Logistics," a "Modern Conference Hall" is the most preferred by all participants, so it is generally a good proposal. However, unique venues such as "Museums" and "Historical buildings" would be valuable in some cases. In the analysis of the performed data of international conferences held in Japan, the "University / Research Institute" and the "Modern Conference Hall" attracted foreign participants as the venue, which was consistent with our other survey results. In addition, the fact that specific venues perform better than expected is an indication for the development of new unique venues.

From "Enhancing conference programs and participant experience" point of view, it is essential to propose a social event that lead to the creation of "Opportunities for Networking."

From the viewpoint of "Hospitality / Tourism," providing local information (hotels, tourism spots, etc.) is important. Foreigners visiting Japan might be pleased with the "Park" which is an everyday landscape for residents.

The new value for the organizers and participants is to provide services that meet the expectations of the participants and to support the expansion of the number of participants and revenue. This time, several characteristics were clarified by the attributes of the participants, such as "Nationality" and "Gender." For example, by proposing local tourism resources and special products to Asian participants who are highly interested in "Tourism" and "Shopping", it is considered that the satisfaction of the participants would increase, and the profits of the organizers could improve.

As for future study, this study was conducted by analyzing three kinds of data, such as the questionnaire responses to the participants of the international academic conference, review data on the Internet, and open data of international conference held in Japan 2017. However, the number of collected data is limited. In addition, the number of supporting academic conference and the number of reviews is small. Therefore, it is hard to say that the results of this paper are always correct. So, it could be improving the accuracy by



collecting much data and respondents of questionnaires at various international conferences and analyzing them.

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