

Factors of Increasing Attractiveness of Tourism-related Facebook Pages

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Abstract. The percentage of people using social network services (SNSs) exceeds 60% in Japan; SNSs are being used by people of various age groups. Recently, the number of companies that use Facebook Pages to advertise their activities and the number of organizations that use them to disseminate information have been increasing. In tourism, disseminating local information on Facebook Pages and increasing the attractiveness of the pages are expected to lead to the promotion of regional tourism industries. In this study, the current state of the use of Facebook Pages in tourism and the content of posts actively reached by many visitors on Facebook Pages were examined. The results indicate that the engagement rate of Facebook Pages offering information related to Christmas, flowers, and foods was high, whereas that of pages offering information on cultural events tended to be low. The engagement rate of Facebook Pages offering real-time information, such as information on the start of the blooming of cherry blossoms, tended to be high. In addition, it was found that most posts include photos and that the inclusion of beautiful photos, such as night scenes, increases the engagement rate.

Keywords: Facebook, promotion of tourism, increasing attractiveness of Facebook Page, engagement rate

1. INTRODUCTION

Along with the spread of smartphones, the number of people using social network services (SNSs) has been increasing. The number of monthly active users worldwide (who use Facebook one or more times per month) reached 1.65 billion as of 31 March 2016 (FACEBOOK, Inc., 2016). In addition, it is reported that the number of monthly active users of Instagram is 0.5 billion (confirmed at the official site as of 27 June 2016), (Instagram, Inc., 2016) that of Twitter is 0.31 billion (as of 31 March 2016), (Twitter, Inc., 2016) and that of Line is 0.215 billion (as of 31 December 2015) (Line Corporation., 2016). According to the 2014 Survey Report on the Time of Using Information Communication Media and Information Behavior published by the Ministry of Internal Affairs and Communications, (Ministry of Internal Affairs and Communications of Japan, 2015) the percentage of people using SNSs exceeds 60% in Japan, and SNSs are

being used by people of various age groups. With this background, a variety of research projects on SNSs has been carried out thus far. Wilson et al. classified 412 sociology papers on Facebook into five categories: descriptive analysis of users, motivations for using Facebook, identity presentation, the role of Facebook in social interaction, and privacy information disclosure. He organized these categories in his research (Wilson et al., 2012).

Recently, the number of companies that use Facebook Pages to advertise their activities and the number of organizations that use them to disseminate information have been increasing. Ohara et al. clarified the characteristics of photos that can increase the responses of users of Facebook Pages of fast-food companies (Ohara, 2015). In tourism, disseminating local information on Facebook Pages and increasing the attractiveness of the pages are expected to lead to the promotion of regional tourism industries. By multiple regression analysis,

Sabate et al. (2014) investigated the factors that increase the attractiveness of Facebook Fan Pages (currently, Facebook Pages) of five travel agencies in Spain using the numbers of “Likes” and comments regarding each post as indices of attractiveness. The results indicate that the number of “Likes” is affected by the presence of video images and photos in the post and that the number of comments is affected by the presence of photos and the time period of posting. However, most recent posts include photos or video images, and the amount of research on Facebook Pages in tourism is insufficient.

The purpose of this study is to examine and analyze the current state of the use of Facebook Pages in tourism in Japan and clarify the factors behind the increase in the attractiveness of these pages.

2. TOURISM-RELATED FACEBOOK PAGES

Facebook navi (<http://f-navigation.jp/>) is the only navigation site in Japan recognized by Facebook, Inc. In this study, 842 Facebook Pages registered in the Facebook Page ranking in the travel category of Facebook navi were targeted. The data were collected on 10 January 2016.

2.1 Contents of Facebook Pages

The author browsed the target 842 pages and classified them depending on their contents. Figure 1 shows the results. Among the 842 pages, 30% of the pages are managed by accommodation facilities, 14% by tourist facilities such as aquariums and museums, 7% by travel agencies, and 3% by transportation organizations. Some of these pages offer regional tourism information such as festivals, events, and the start of the autumn foliage season; however, these pages are basically used as a public relations tool of these facilities and organizations. Other pages disseminate regional tourism information rather than advertisements of the activities of organizations. The management of these pages varies from companies and

individuals to volunteer groups. individuals to volunteer groups. Twenty-one percent of the pages (178 pages) focus on information about particular regions; 3% focus on information about specific topics such as one-day hot spring trips, famous places for flowers, and Buddhist statues; and 6% focus on information about foreign countries.

2.2 Facebook Pages offering regional tourism information

2.2.1 Number of fans

The users clicking the “Like” button for a page are registered as fans of the page, and postings on the Facebook Page appears on the timeline of the user. The number of users who have clicked the “Like” button is called “the number of fans”. Figure 2 shows the number of fans of the top 100 pages among the 178 Facebook Pages offering regional tourism information. The number of fans of the top-ranking page exceeds 70,000. There are 19 pages with more than 10,000 fans. The number of fans of the 36th-ranking or lower pages is less than 5,000.

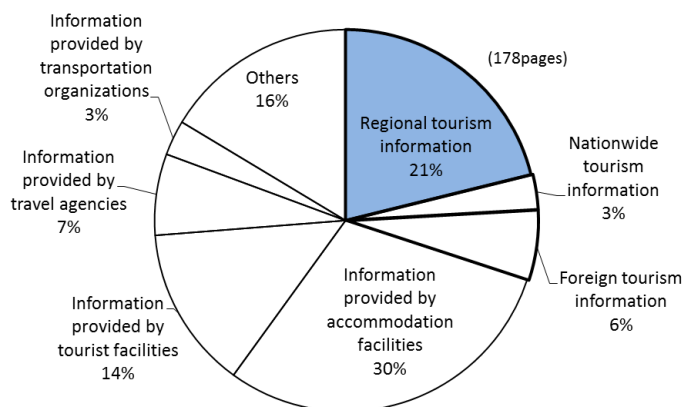


Figure 1: Content of Facebook Pages in the travel category.

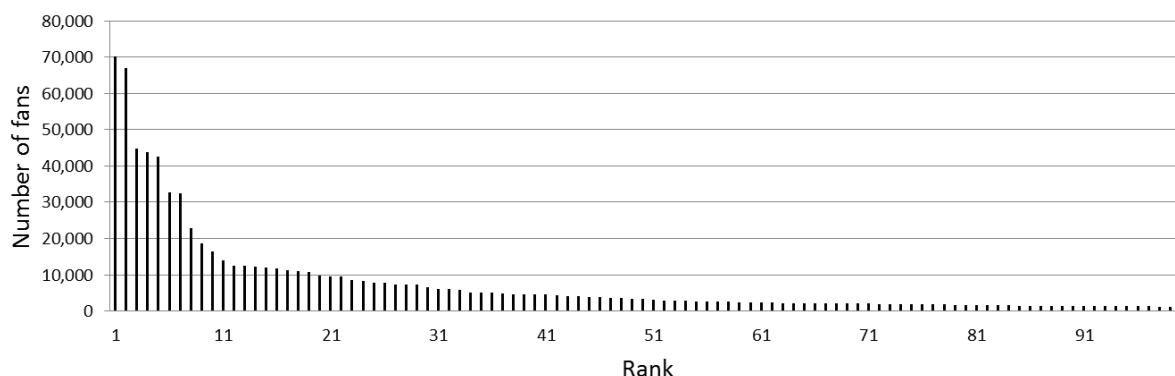


Figure 2: Number of fans of top 100 pages that offer regional tourism information.

2.2.2 Management

Figure 3 shows the classification of the management of the 178 pages. Among the pages, 36, 24, and 9% of Facebook Pages are managed by individuals, private companies, and local governments, respectively. Others include general incorporated associations, incorporated nonprofit organizations (NPOs), and volunteer groups such as regional tourist associations.

Table 1 shows a summary of 19 Facebook Pages with more than 10,000 fans. Facebook Pages on various areas from Hokkaido to Okinawa attract many fans, although 2 pages on Yokohama are also included in the list. Figure 4 shows the percentages of the management of the 19 pages listed in Table 1. Considering all the Facebook Pages offering regional tourism information, more than 30% of the pages are managed by individuals, as shown in Fig. 3; however, only 11% (2 pages) of Facebook Pages with more than 10,000 fans is managed by individuals, as shown in Fig. 4.

2.2.3 Number of posts

The numbers of posts on 19 Facebook Pages listed in Table 1 per year (2015) were examined. Figure 5 shows the relationship between the number of posts per year and the number of fans. The Facebook Page on Shirakawa-go, which has the 2nd largest number of fans, has an extremely large number (2,612) of posts per year because the posts from users are frequently shared. The page on Shirakawa-go is excluded from Fig. 5 because a comparison with other Facebook Pages is impossible. The coefficient of correlation between the number of posts per year and the number of fans (Fig. 5) is 0.51 (positive correlation). The frequency of posting is found to affect the increase in the

number of fans. Four Facebook Pages have fewer than 100 posts per year, whereas other Facebook Pages have 160–651 posts per year. In other words, such pages have from one post every two days to two posts per day on average.

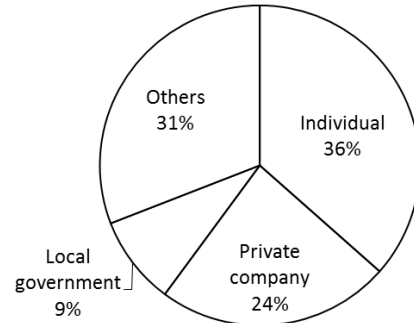


Figure 3: Management of Facebook Pages offering regional tourism information.

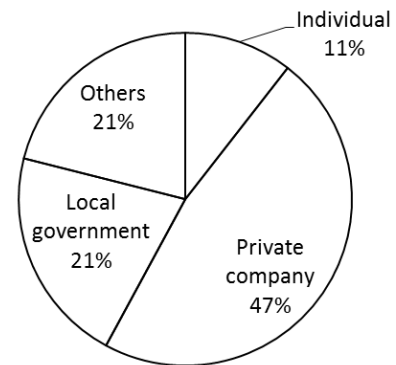


Figure 4: Management of Facebook Pages with more than 10,000 fans.

Table 1: Facebook Pages with more than 10,000 fans.

Rank	Facebook Page name	Management	Number of fans
1	Kyushu Tourism Information	General incorporated association	70,105
2	Shirakawa-go	Private company	67,049
3	Akita Vision	Local government	44,780
4	The Heart of Osaka-Visit Osaka Japan	Local government	43,673
5	Yokohama Tourism Information	Public interest incorporated foundation	42,655
6	Yokohama China Town	Cooperative association	32,748
7	Gooood Place!! in Shiga	Private company	32,566
8	Otaru Fan	Private company	22,830
9	Exchange of Kyoto Information -Kyoto Now-	Private company	18,592
10	Hyogo Tourism Guide	Local government	16,470
11	Okinawa Diving	Private company	13,870
12	Okayama Great Spot Net (Okayama Prefectural Tourism Federation)	Public interest incorporated association	12,547
13	Fukuoka No Machi	Individual	12,472
14	I LOVE TOKUSHIMA	Individual	12,267
15	Hokkaido Fan Magazine	Private company	12,053
16	Let's Visit Nara	Private company	11,857
17	Kamakura Block	Private company	11,275
18	Web magazine [Shikoku Tairiku]	Private company	11,026
19	Nagasaki Tourism Promotion Section	Local government	10,657

An interview with an organization that manages one of the Facebook Pages listed in Table 1 was carried out on 30 October 2015. The management consisted of a total of nine members including one young staff member and eight people who provide regional information. They have adopted the following management rules.

- Frequency of posting:
No more than one or two posts per day.
- Time of posting:
Reserve the time period in which the number of reaches from fans is high according to Page Insights and post in the time period
- Contents of posts:
Try to make the contents consistent with eye-catching photos and 3–5 lines of text. Invite the users to a detailed page via a link.

This organization unfailingly posts at least one post per day. The interviewee said finding fodder every day is troublesome work even though there are nine members. When a Facebook Page is managed by individuals, finding fodder and collecting information require much time and expense, leading to the difficulty of posting every day. Therefore, the percentage of Facebook Pages with more than 10,000 fans that are managed by individuals is small.

3. ANALYSIS OF CONTENT OF POSTS

The content of posts and user comments submitted to the Facebook Pages of “Kyushu Tourism Information”, “Akita Vision”, and “Yokohama Tourism Information”, included in Table 1, between 1 January 2015 and 31 December 2015, were collected as source data and analyzed.

3.1 Content of posts

Table 2 shows a summary of the total number of posts per year as well as the numbers of posts including photos,

video images, and Uniform Resource Locators (URLs) of external homepages. The mean number of posts per day is 1.02–1.30. Most of the posts on the three Facebook Pages include photos, and many posts have URLs; however, the number of posts with video images is small.

3.2 Engagement rate

Engagement rate is an index for evaluating the attractiveness of Facebook Pages on SNSs. The conventional engagement rate is given by

$$\text{Conventional engagement rate} = (\text{Number of “Likes”} + \text{Number of comments} + \text{Number of shares of the post}) / \text{Number of fans} \dots\dots\dots (1)$$

However, thus defined conventional engagement rate decreases as the number of fans increases (facenavi, 2014). Therefore, Facebook, Inc. defined a new engagement rate as

$$\text{New engagement rate} = (\text{Number of “Likes”} + \text{Number of comments} + \text{Number of shares} + \text{Number of people who have clicked on the post}) / \text{Number of reaches} \dots\dots\dots (2)$$

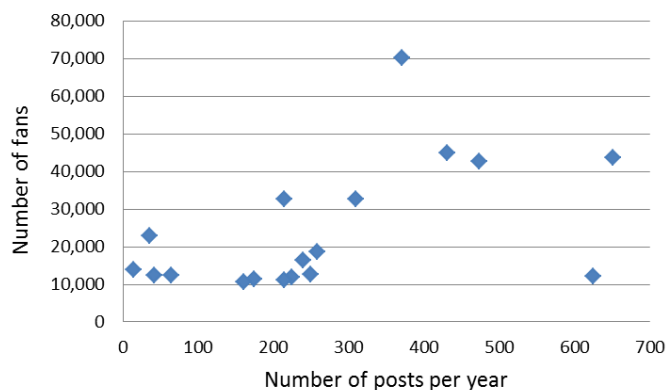


Figure 5: Relationship between number of fans and number of posts per year

Table 2: Total number of posts per year.

	Total number of posts 2015.1.1~12.31	Number of posts with photos	Number of posts with video images	Number of posts with URLs of other HPs
Kyushu Tourism Information	371	363	1	313
Akita Vision	431	424	7	404
Yokohama Tourism Information	473	468	5	352

Table 3: Engagements per year.

	Number of fans as of 2016.1.10	Number of engagements			Number of engagements per post	Engagement rate per fan
		Number of “Likes”	Number of shares	Number of comments		
Kyushu Tourism Information	70,105	856,559	38,515	5,493	2,427	3.5%
Akita Vision	44,780	621,495	26,001	4,637	1,513	3.4%
Yokohama Tourism Information	42,655	651,163	23,136	3,370	1,433	3.4%

This was released in January 2015 or later but the date of introduction has not been released. Third parties, other than the management, cannot calculate the new engagement rate, because the numbers of people who have reached and clicked are used in the calculation. Therefore, in this study, the conventional engagement rate calculated using eq. (1) was used. Table 3 shows a summary of the number of engagements for one year and the engagement rate for one fan. According to the Facebook Engagement Survey 2014 (facenavi, 2014), the mean engagement rate of Facebook Pages with 10,000 to 50,000 fans is 1.996% and that of Facebook Pages with 50,000 to 100,000 is 1.499%. The mean engagement rate of Facebook Pages in the travel/leisure category is 1.56% (mean number of fans: 30,642), and that of Facebook Pages in the tour/sightseeing category is 0.54% (mean number of fans: 29,569). The engagement rates listed in Table 3 are high, in the range of 3.4–3.5, indicating that these Facebook Pages attract many users.

3.3 Text analysis

Quantitative analysis of the text of posts on the Facebook Page of “Yokohama Tourism Information” was carried out using the KH Coder developed by Higuchi (Higuchi, 2004). The 100 posts with the top 100 engagement rates (32.90–4.07%) and the 100 posts with the lowest 100 engagement rates (1.56–0.35%) were targeted. The names of the two groups were used as external variables to draw the co-occurrence network shown in Fig. 6. There are 22 words (e.g., Yokohama) related to posts in both the top 100 and the lowest 100 groups, nine words (e.g., Red Brick Warehouse) related to posts in the top 100 group alone, and seven words (e.g., dance) related to posts in the lowest 100 group alone.

Regarding the nine words related to posts in the top 100 group and seven words related to posts in the lowest 100 group, the original text in the posts was referenced using the concordance function of the KH Coder. Each original text was read and classified according to content. Table 4 shows a summary of the results. Some contents exist only in the posts in the upper group, whereas other

contents exist only in the posts in the lower group. However, event information, seasonal topics, and introduction of shops and sites exist in the posts in both upper and lower groups. The engagement rate of posts offering information related to Christmas, flowers, and foods tends to be high, whereas that of posts offering information on cultural events tends to be low. The engagement rate of posts offering real-time information, such as information on the start of the blooming of cherry blossoms, tends to be high.

As shown in Table 4, similar contents are included in the posts regarding event sites in both upper and lower groups; however, the photos included in these posts are different. The posts in the upper group include beautiful photos of night scenes of Yokohama, whereas the posts in the lower group include photos of Bon Dance, dinosaurs, and wolves. The engagement rate of posts on souvenirs, boxed lunches, exhibitions, and recruiting for tours and lecture tends to be low.

Regarding the posts on walking routes, the photos submitted were not very attractive. There were comments from users who are familiar with the routes; for example, “that is a route I like to walk” or “running the route in the morning is pleasant”, suggesting that users submit comments sympathetic to the content of the posts.

4. CONCLUSION

In this study, the numbers of fans and posts, as well as management, of Facebook Pages offering regional tourism information in Japan were surveyed. The percentage of Facebook Pages managed by individuals decreased when focusing on Facebook Pages with more than 10,000 fans compared with that of total Facebook Pages managed by individuals. For the Facebook Pages with more than 10,000 fans, there was a positive correlation between the number of fans and the number of posts. Furthermore, the analysis of the content of active Facebook Pages with more than 40,000 fans revealed that most of the posts include photos, and that the engagement rate of posts offering information related to Christmas, flowers, and foods tends to be high, whereas that of posts offering information on

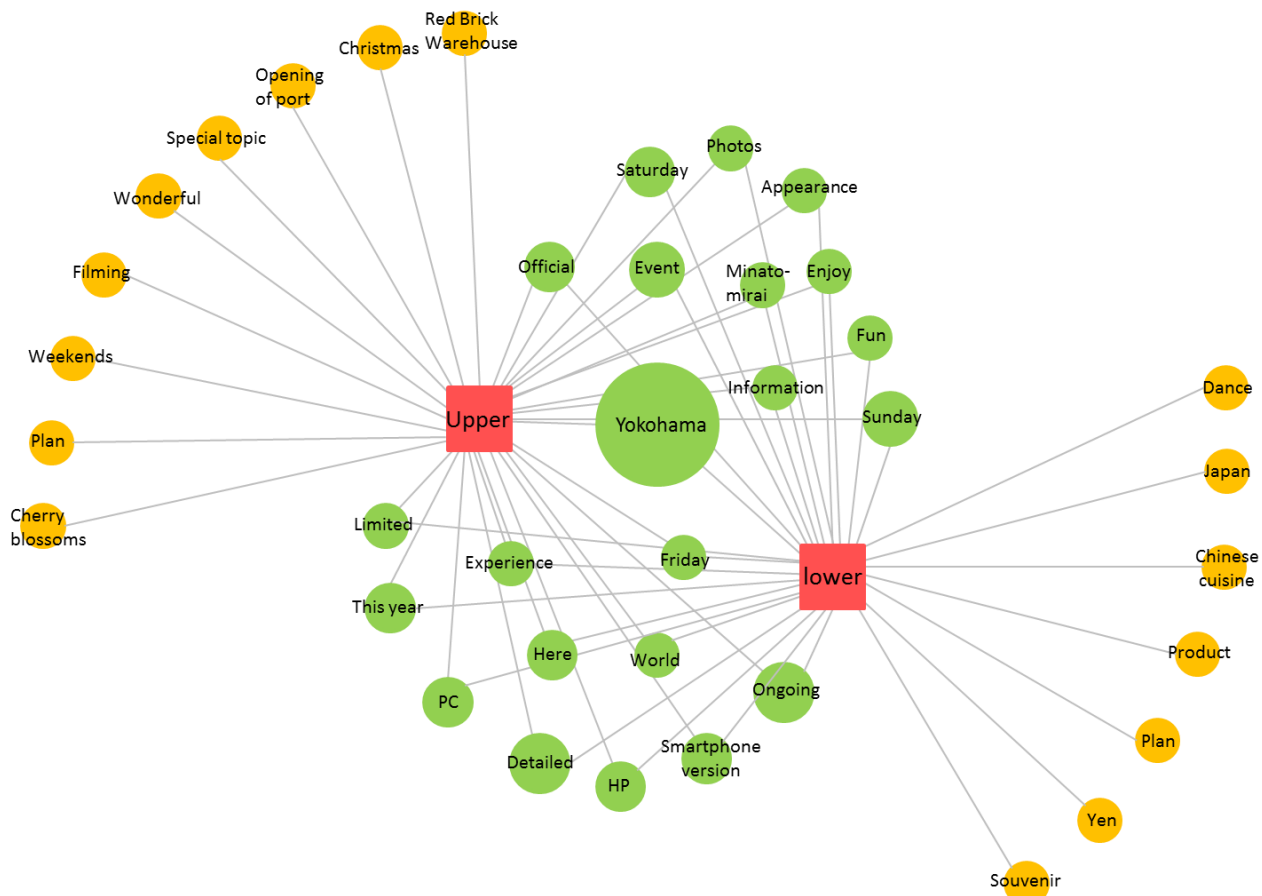


Figure 6: Co-occurrence network of posts in upper and lower groups.

Table 4: Classification of content of posts in upper and lower groups.

Category	Upper group	Lower group
Events	Christmas / Tulip / Cherry blossoms / Sound, light, and fireworks / Laser mapping / Strawberries / Ramen / Beer / Dumpling / Pikachu	Opening of Yokohama Port / China Movie Festival / Noh / Cultural events such as anniversary of the founding of the People's Republic of China
Seasonal topics	Start of blooming of cherry blossoms / Best season for roses, tulips, and autumn foliage / Fireworks / Illumination and lighting / Large passenger liner	Sale of tickets (limited-offer discount tickets of public transportation)
Shops	Sukiyaki restaurants / Wine bars	Japanese restaurants / Chinese restaurants / Soba restaurants
Sites	Special post on Christmas and New Year holidays / Special post on fireworks and beer gardens / Special post on autumn foliage	
Event sites	Special post on autumn events / Special post on weekend events in summer	Special post on events during summer holiday
Souvenirs/boxed lunches		Souvenirs (confectionery, curry, seaweed) / Limited boxed lunches and confectionery
Exhibitions		Exhibitions (giant mooncake, filming set) / Exhibitions (paintings, photos)
Recruiting		Tour / Talk show with meal / Open lecture for citizens
Others	Walking routes	

cultural events tends to be low. The engagement rate of posts offering real-time information also tends to be high. The inclusion of beautiful photos, such as night scenes, was found to increase the engagement rate.

In this study, the factors that increase the attractiveness of Facebook Pages on regional tourism information were analyzed on the basis of the posts submitted by different management. In future studies, the content of posts that lead to an increase in the attractiveness of Facebook Pages will be clarified through the analysis of users comments.

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