An Analysis of User Attitudes to SNS

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Abstract

Social Networking Service (SNS) have become widely used in Japan in recent years with Facebook, mixi and Twitter being the most popular. These are used in various fields of life together with the convenient devices such as smart-phones. A questionnaire investigation was used to clarify the current usage condition, issues and desired function etc. Information for marketing purposes was then extracted. Fundamental Statistical Analysis, Multi Correspondence Analysis, Quantitative Analysis and Text Minig Analysis were then performed. Reviewing past research, there are some related papers, but they do not include new tools which are evolving rapidly. Moreover there has been little research conducted on this precise topic. Some interesting results were obtained.

Keywords: SNS, questionnaire investigation, Multivariate Analysis, Text Minig

1. Introduction

Social Networking Service (SNS) become widely used in Japan in recent years with Facebook, mixi and Twitter are the popular ones. Big Disaster happened at 11/March/2011 in the east part of Japan. It is well known that Facebook played important role in communication under the condition that telephone and/or cellular phone connected with Internet could not make link. Google launched forth into SNS by the name Google+ at June 2011. Thus, it has become a hot business spot and it makes great influence upon society and economy.

In this paper, we make questionnaire investigation in order to clarify the current usage condition, issues, and desired functions etc. Marketing applications would then, be extracted. Reviewing past researches, Miyao et al. (2008) made questionnaire investigation concerning usage objective of SNS and its usage consciousness. They analyzed into 4 clusters by cluster analysis but it does not include Facebook and Google+, which are increasing among users recently. Yamamoto et al. (2011) made research on the intimacy among friends on SNS but it does not mention about sharing information. Thus, there are researches concerning SNS, but there has been few researches made on our above stated themes.

The rest of the paper is organized as follows. Current condition of SNS is stated in section 2. Investigating Former Researches is stated in section 3. Outline of questionnaire research is stated in section 4. Multivariate Analysis such as Multi Correspondence Analysis and Quantitative Analysis is executed in section 5. Text Mining Analysis is executed in section 6, 7. Section 8 is a summary.

2. Current Condition of SNS

SNS means the services to construct social network on the Internet. Friendster which has started in the year 2002 is said to be the father of SNS (Saito, 2010). Various typed SNS were born ever since. Japanese users have reached 42.89 million at the end of December 2011. It is reported that 45.1% of Internet users (95.1 million) use SNS. SNS users will increase as is shown in Figure 1.

From the Nielsen data, major SNS’s usage condition is as follows (Table 1, 2, Figure 2). Visitors to Facebook are 16.92 million people, which are the largest, and then Twitter: 12.78, mixi: 4.92, Google+: 3.86 follow. Nearly 30% domestic Internet users in Japan use Facebook. As for the average visiting time, mixi is the most for 125 minutes and heavy users often use this media. Twitter has achieved 120% compared with the former month’s usage. This may be because it is used in such real time events as the eletion of The House of Representative. Various field of usage would prevail hereafter.
Figure 1. Users number of SNS in Japan

Source: ICT.Reserch & Consulting Inc.

Table 1. Audience data for Dec/2012 mixi, Twitter, Facebook, Google+ by PC net

<table>
<thead>
<tr>
<th>User</th>
<th>User (×1000)</th>
<th>Ratio to the former month</th>
<th>Reach Ratio</th>
<th>Total using time (million minutes)</th>
<th>Ratio to the former month</th>
<th>Average using time (minutes)</th>
<th>Ratio to the former month</th>
</tr>
</thead>
<tbody>
<tr>
<td>mixi</td>
<td>4,916</td>
<td>97.8%</td>
<td>8.1%</td>
<td>617</td>
<td>102.1%</td>
<td>125</td>
<td>104%</td>
</tr>
<tr>
<td>Twitter</td>
<td>12,776</td>
<td>100.5%</td>
<td>21.1%</td>
<td>562</td>
<td>120.6%</td>
<td>44</td>
<td>120%</td>
</tr>
<tr>
<td>Facebook</td>
<td>16,918</td>
<td>99.9%</td>
<td>28.0%</td>
<td>1,328</td>
<td>102.2%</td>
<td>78</td>
<td>102%</td>
</tr>
<tr>
<td>Google+</td>
<td>3,861</td>
<td>98.6%</td>
<td>6.4%</td>
<td>25</td>
<td>86.3%</td>
<td>6</td>
<td>88%</td>
</tr>
</tbody>
</table>

Source: Nielsen.

Figure 2. Time series of visitors by PC for Sep/2010~Dec/2012 (×1000)

Source: Nielsen.

Table 2. Time series of visitors by PC for Sep/2010~Dec/2012 (×1000)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>mixi</td>
<td>9,557</td>
<td>9,744</td>
<td>9,608</td>
<td>10,214</td>
<td>11,228</td>
<td>10,659</td>
<td>11,228</td>
<td>11,028</td>
<td>11,228</td>
</tr>
<tr>
<td>Twitter</td>
<td>11,129</td>
<td>11,778</td>
<td>12,444</td>
<td>12,901</td>
<td>14,211</td>
<td>12,824</td>
<td>17,571</td>
<td>15,489</td>
<td>14,666</td>
</tr>
<tr>
<td>Facebook</td>
<td>2,080</td>
<td>2,819</td>
<td>2,934</td>
<td>3,077</td>
<td>4,598</td>
<td>6,030</td>
<td>7,659</td>
<td>6,939</td>
<td>8,204</td>
</tr>
<tr>
<td>Google+</td>
<td></td>
<td></td>
<td></td>
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</tr>
</thead>
<tbody>
<tr>
<td>mixi</td>
<td>14,033</td>
<td>14,917</td>
<td>14,723</td>
<td>8,385</td>
<td>7,684</td>
<td>8,135</td>
<td>8,037</td>
<td>6,839</td>
<td>7,428</td>
</tr>
<tr>
<td>Twitter</td>
<td>14,914</td>
<td>14,962</td>
<td>14,416</td>
<td>14,551</td>
<td>13,199</td>
<td>13,529</td>
<td>13,593</td>
<td>13,419</td>
<td>14,017</td>
</tr>
<tr>
<td>Facebook</td>
<td>9,504</td>
<td>10,827</td>
<td>11,274</td>
<td>11,319</td>
<td>13,061</td>
<td>12,543</td>
<td>13,049</td>
<td>13,508</td>
<td>14,877</td>
</tr>
<tr>
<td>Google+</td>
<td>91</td>
<td>166</td>
<td>2,257</td>
<td>1,622</td>
<td>1,541</td>
<td>2,038</td>
<td>2,051</td>
<td>2,045</td>
<td>2,480</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>mixi</td>
<td>6,682</td>
<td>6,463</td>
<td>6,127</td>
<td>5,671</td>
<td>5,686</td>
<td>5,745</td>
<td>5,028</td>
</tr>
<tr>
<td>Twitter</td>
<td>14,824</td>
<td>13,741</td>
<td>13,920</td>
<td>13,741</td>
<td>13,243</td>
<td>13,011</td>
<td>12,710</td>
</tr>
<tr>
<td>Facebook</td>
<td>17,241</td>
<td>16,083</td>
<td>16,027</td>
<td>16,730</td>
<td>17,369</td>
<td>17,821</td>
<td>16,937</td>
</tr>
<tr>
<td>Google+</td>
<td>3,099</td>
<td>4,852</td>
<td>4,295</td>
<td>4,019</td>
<td>4,159</td>
<td>3,949</td>
<td>3,916</td>
</tr>
</tbody>
</table>
3. Investigating Former Researches

3.1 Positioning in SNS

There are some related papers concerning SNS. Thomson Robert et al. (2012) made a study of 131 Japanese SNS users who use both Facebook and mixi. In that research, self-disclosure, numbers of contacts, in-group numbers, and levels of perceived commitment on mixi and Facebook were measured. The study found that such users showed a lower level of self-disclosure, connected with fewer people and had fewer categories of contacts, and felt a higher degree of commitment on mixi than on Facebook. It may have found the characteristics of the correlation and distinction among tools, but it lacks the viewpoints of organizational management theory. In this paper, focusing the past researches of Harada (2008), a new approach is executed based upon organizational management theory. Such research is quite a new one.

Harada arranged four business models as Figure 3.

The horizontal line shows the users’ communication motive and the vertical line shows the solution to be captured. Former one is represented as “Construction of relation” vs. “Self-expression” and the latter one as “Realization of dialogue” vs. “Self-assertion”.

3.2 SNS Users’ Desire

Harada pointed out that SNS users want to have relation so as to satisfy following three desire.

- Desire for having relationship:
  Desire for having relationship by making communication with friends in having mail and/or agreement behavior.
  The expected role in using SNS is to build good relationship with friends and keep it long. Furthermore, it is used to keep contact with those who are busy or stay in the distance.

- Desire for sharing sympathy:
  Desire for sharing sympathy by enjoying hobbies with friends.
  As for the second role, it is to talk with friends for about hobby freely. By attending the same hobby group, they seek to share the sympathy.

- Desire for making expression:
  Desire for making expression as actor/actress and being fascinated.
  As for the third role, it is to confirm his own value through the evaluation executed by other people. By letting others know himself and by expressing his skill, SNS can be utilized as a “Theater”.

3.3 Social Background for the Prevailing SNS

In Marketing 3.0 by P. Kotler (2010), consumers can gather information speedily by utilizing IT. He says that
“cooperative marketing” utilizing SNS becomes an important keyword. Comparison of Marketing 1.0, 2.0 and 3.0 is shown in Table 3.

Table 3. Comparison of marketing 1.0, 2.0, and 3.0

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Product-centric Marketing</td>
<td>Consumer-oriented Marketing</td>
<td>Values-driven Marketing</td>
</tr>
<tr>
<td>Enabling forces</td>
<td>Sell products</td>
<td>Satisfy and retain the consumers</td>
<td>Make the world a better place</td>
</tr>
<tr>
<td>How companies see the market</td>
<td>Mass buyers with physical needs</td>
<td>Smarter consumer with mind and heart</td>
<td>Whole human with mind, heart, and spirit</td>
</tr>
<tr>
<td>Key marketing concept</td>
<td>Product development</td>
<td>Differentiation</td>
<td>Values</td>
</tr>
<tr>
<td>Company marketing guidelines</td>
<td>Product specification</td>
<td>Corporate and product positioning</td>
<td>Corporate mission, vision, and values</td>
</tr>
<tr>
<td>Value propositions</td>
<td>Functional</td>
<td>Functional and emotional</td>
<td>Functional, emotional, and spiritual</td>
</tr>
<tr>
<td>Interaction with consumers</td>
<td>One-to-many transaction</td>
<td>One-to-one relationship</td>
<td>Many-to-many collaboration</td>
</tr>
</tbody>
</table>

Source: P. Kotler/Marketing 3.0.

4. Outline of the Questionnaire Research and Examinees

4.1 Outline of the Questionnaire Research

We make a questionnaire investigation concerning the SNS. The outline of questionnaire research is as follows.

1) Scope of investigation: Student, Government Employee and Company Employee etc., Japan
2) Period: April/26/2012～June/6/2012
3) Method: Mail, online and self-writing
4) Collection: Number of distribution 1,500, Number of collection 1,197 (collection rate 79.8%), Valid answer 1,098

Major single variable summary results of questionnaire investigation are as follows.

Table 4. Major single variable summary results

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Number of Answer</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. Use the SNS</td>
<td>Use</td>
<td>792</td>
<td>72.1%</td>
</tr>
<tr>
<td></td>
<td>Do not use</td>
<td>306</td>
<td>27.9%</td>
</tr>
<tr>
<td>Q13. Gender</td>
<td>Male</td>
<td>650</td>
<td>59.2%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>448</td>
<td>40.8%</td>
</tr>
<tr>
<td>Q14. Age</td>
<td>—20</td>
<td>196</td>
<td>17.9%</td>
</tr>
<tr>
<td></td>
<td>—30</td>
<td>328</td>
<td>29.9%</td>
</tr>
<tr>
<td></td>
<td>—40</td>
<td>299</td>
<td>27.2%</td>
</tr>
<tr>
<td></td>
<td>—50</td>
<td>194</td>
<td>17.7%</td>
</tr>
<tr>
<td></td>
<td>—60</td>
<td>73</td>
<td>6.6%</td>
</tr>
<tr>
<td></td>
<td>60—</td>
<td>8</td>
<td>0.7%</td>
</tr>
<tr>
<td>Q15. Occupation</td>
<td>Student</td>
<td>295</td>
<td>26.9%</td>
</tr>
<tr>
<td></td>
<td>Government Employee</td>
<td>15</td>
<td>1.4%</td>
</tr>
<tr>
<td></td>
<td>Company Employee</td>
<td>595</td>
<td>54.2%</td>
</tr>
<tr>
<td></td>
<td>School Teacher/Staff</td>
<td>43</td>
<td>3.9%</td>
</tr>
<tr>
<td></td>
<td>Clerk of Organization</td>
<td>19</td>
<td>1.7%</td>
</tr>
<tr>
<td></td>
<td>Independents</td>
<td>45</td>
<td>4.1%</td>
</tr>
<tr>
<td></td>
<td>Temporary Employee</td>
<td>15</td>
<td>1.4%</td>
</tr>
<tr>
<td></td>
<td>Part-timers</td>
<td>53</td>
<td>4.8%</td>
</tr>
<tr>
<td></td>
<td>Miscellaneous</td>
<td>18</td>
<td>1.6%</td>
</tr>
<tr>
<td>Q16. Residence</td>
<td>Hokkaido</td>
<td>22</td>
<td>2.0%</td>
</tr>
<tr>
<td></td>
<td>Tohoku Region</td>
<td>49</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>Kanto Region</td>
<td>157</td>
<td>14.3%</td>
</tr>
<tr>
<td></td>
<td>Chubu Region</td>
<td>176</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>Kansai Region</td>
<td>400</td>
<td>36.4%</td>
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<td></td>
<td>Chugoku Region</td>
<td>110</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td>Shikoku Region</td>
<td>105</td>
<td>9.6%</td>
</tr>
<tr>
<td></td>
<td>Kyushu Region</td>
<td>79</td>
<td>7.2%</td>
</tr>
</tbody>
</table>
4.2 Analysis Methods

Reviewing past researches, Miyao et al. (2008) made questionnaire investigation concerning usage objective of SNS and its usage consciousness. They analyzed into 4 clusters by cluster analysis but it does not include Facebook and Google+, which are increasing among users recently. Yamamoto et al. (2011) made research on the intimacy among friends on SNS but it does not mention about sharing information.

Questionnaire results are analyzed in five methods as is shown in Table 5. First, summary by single variable is executed in order to examine the pattern of responding about items. Second, analysis by Multi Corresponding Analysis is executed in order to visualize the relationship among the items. Third, analysis by Factor Analysis is executed in order to clarify the viewpoints of important factors. Fourth, Quantification Method II is executed in order to grasp the contribution to the usage of SNS. At the end, Text mining is executed in order to visualize the total structure among questions systematically.

Table 5. The systematic approach on efficient analysis

<table>
<thead>
<tr>
<th>Step</th>
<th>Aim of analysis</th>
<th>Used Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Examining the pattern of responding about Items</td>
<td>Single Variable Analysis</td>
</tr>
<tr>
<td>2</td>
<td>Examine the relationship among questionnaire items about important factors</td>
<td>Multi Correspondence Analysis : (Positioning)</td>
</tr>
<tr>
<td>3</td>
<td>Clarifying the viewpoints and axes for the important factors</td>
<td>Factor Analysis: (Extracting)</td>
</tr>
<tr>
<td>4</td>
<td>Grasp the contribution to the usage of SNS</td>
<td>Quantification Method II : (Contribution)</td>
</tr>
<tr>
<td>5</td>
<td>Visualize the Total structure among questions systematically</td>
<td>Key Graph and Text Analytics for Surveys : (Text Mining)</td>
</tr>
</tbody>
</table>

4.3 Outline of Examinees

4.3.1 Average Utilization Frequency of the SNS (Q2)

From Figure 4, we can observe that 78% people use the SNS every day.

![Figure 4. Average usage frequency of the SNS (Q2)](image)

4.3.2 Usage Condition of the SNS (Q3, Q4, Q9)

We show the usage condition of the SNS concerning following questions in Figure 5.

Q3. What kind of the SNS do you use?
Q4. What kind of the SNS do you use the most?
Q9. What kind of the SNS are you going to continue to use?

The usage of Facebook, mixi and Twitter, which are the genre of Integrated SNS, are frequently used and YouTube (one of the moving picture SNS) is the same.
4.3.3 Reason to Use the SNS (Q5)

Biggest reason is “① Able to communicate with friends and acquaintances”, then “⑨ Able to collect/ put out hobby and interesting information”, “⑩ Able to post diary, tweets, moving images and photos” follow.

4.3.4 Interesting and Fascinating Points When Using the SNS (Q6)

From Figure 7, we can observe that “① Able to communicate with each other by diary and tweets” is the most and then “② Good for killing time”, “③ Obtained much opportunities to contact with friends and acquaintances who were under rare contact” and “⑤ Able to collect news and information efficiently” follow.
4.3.5 The Reason for Coming to Use the SNS (Q7)

Biggest reason is “① Suggestion by the friends and acquaintances”, then “③ To collect information”, “⑩ Acquaintances and friends use them” follow.

4.3.6 Average Utilization Frequency Reply to the Comments or Share Photos and News (Q8)

From Figure 9, we can observe that 32% people reply to the comments or share photos and news every time and frequency.
4.3.7 The Reason for Continuing to Use the SNS in the Future (Q10)

Biggest reason is “① Want to enrich communication with friends and acquaintances”, then “⑤ Want to collect/put out hobby and interesting information”, “③ Want to collect beneficial and delightful information” follow.

Figure 10. The reason for continuing to use the SNS in the future (Q10)

4.3.8 Important Points When Not Using the SNS (Q11)

From Figure 11, we can observe that “② Cannot continue because it is too bothering” is the most and then “③ Anxious about security concerning individual information”, “⑦ Likely to increase the spam e-mail” and “① Do not have interest” follow. Those who do not use SNS recognize that they do not have Internet because they feel anxiety how to use.

Figure 11. Important points when not using the SNS (Q11)

4.3.9 Expectation to the SNS in the Future (Q12)

From Figure 12, we can observe that “⑭ To make perfect the security of individual information” is the most and then “⑬ Easiness in using OREasy to use”, “⑱ Enrich the collection of information” and “⑩ Make full communication with friends and acquaintances” follow. Both users and non-users want to resolve the security anxiety at first. They also want to have easiness of handling. SNS which meet these requests will develop.
5. Multivariate Analysis

5.1 Multi Correspondence Analysis

5.1.1 Execution of Analysis

We execute the multi correspondence analysis in Q6 (What are the SNS’s interesting and fascinating points?), Q11 (Why don’t you use the SNS?), Q12 (What do you expect the SNS in the future?) (Fig 13, 14, 15) in order to find the correlation of each items.

1) What are the SNS’s interesting and fascinating points? (Q6)

We can observe the following result from Figure 13. From the data, we can confirm that Dimension 1 axis can be interpreted as “Sympathy” and Dimension 2 as “Society”. An eigenvalue of Dimension 1 axis is 0.348 and those of Dimension 2 is 0.273. 62.1% can be explained by these two major axes. We can extract two clusters. We can assume that the first cluster shows “relationship, confirmation and function” (②Obtained much opportunities to contact with friends and acquaintances who were under rare contact), ③(Able to collect news and information efficiently), ④(Rich online game). The second one would mean “Sympathy and Participation” (⑥(Able to find new friend who has the same hobby and interest via the Net), ⑥(Able to share sympathy by joining a group)).

![Figure 12. Expectation to the SNS in the future (Q12)](image)

![Figure 13. What are the SNS's interesting and fascinating points? (Q6)](image)
2) Why don’t you use the SNS? (Q11)
We can observe the following result from Figure 14. From the data, we can confirm that Dimension 1 axis can be interpreted as “Relationship” and Dimension 2 as “Indifference” and eigenvalue of Dimension 1 axis is 0.388 and those of Dimension 2 is 0.305. 69.3% can be explained. We can extract four clusters. We can assume that the first cluster shows “Safety, anxiety about operation” (③ (Anxious about security concerning individual information), ⑨ (Cannot continue because it is too bothering)). The second one would mean “Indifference” (① (Do not have interest), ② (Interesting but do not know how to use)). The third one “Anxious about fee” (④ (Anxious about fee), ⑩ (Likely to increase the spam e-mail)). The fourth one “Anxiety for human relationship” (⑥ (Become poor in human communication), ⑦ (Will waist a lot of time)).

3) What do you expect the SNS in the future? (Q12)
We can observe the following result from Figure 15. From the data, we can confirm that Dimension 1 axis can be interpreted as “Function” and Dimension 2 as “Information”. An eigenvalue of Dimension 1 axis is 0.471 and those of dimension 2 is 0.301. 77.2% can be explained by these two major axes. We can extract three clusters. We can assume that the first cluster shows “relationship, participation and function” (① (Make full communication with friends and acquaintances), ② (Want to seek old friends, acquaintances and new friends), ⑥ (Have a space/field for exchanging opinion about goods, service and politics), ⑫ (Interconnection among SNS functions)). The second cluster would mean “Sharing・Diffusion and Function” (⑦ (Gather interesting information), ⑩ (Easiness in using)). The third one “Sympathy and Confirmation” (④ (Provide the valuable information), ⑤ (Enrich the collection of information)).
4) Difference between users and non-users in Q12

We analyze Q12 by diving users and non-users. First of all, we see the users’ case. From the data shown in Figure 16, ④ (Provide the valuable information) has the largest score. This means that sharing information is valuable for them. Dimension 1 axis can be interpreted as “Sympathy” and Dimension 2 as “Society”. This is the same with Figure 13. An eigenvalue of Dimension 1 axis is 0.327 and those of Dimension 2 is 0.265. 59.2% can be explained. We can extract three clusters. The first cluster shows “Relationship and Function” (① (Make full communication with friends and acquaintances), ⑪ (Restrict the writing in board by others), ⑫ (Interconnection among SNS functions)). The second cluster would mean “Confirmation and Sharing Diffusion” (⑤ (Enrich the collection of information), ⑦ (Gather interesting information)). The third one “Expression and Function” (⑧ (To disclose the information of himself/herself), ⑨ (To make perfect the security of individual information)). This is the one we could not find in Figure 15. Users want to share information or express themselves under the strengthened security system.

Now we see non-users’ case (Fig 17). Dimension 1 axis can be interpreted as “Function” and Dimension 2 as “Relationship”. ⑥ (To disclose information of himself/herself) is located in the small value part, which shows their attitude toward SNS. An eigenvalue of Dimension 1 axis is 0.482 and those of Dimension 2 is 0.267. 74.8% can be explained. We can extract three clusters. The first cluster shows “Participation and Function” (⑥ (Have a space/field for exchanging opinion about goods, service and politics), ⑫ (Interconnection among SNS functions)). The second cluster would mean “Relationship and Sharing Diffusion” (① (Make full communication with friends and acquaintances), ⑦ (Gather interesting information)). The third one “Function” (⑩ (Easiness in using), ⑪ (Restrict the writing in board by others)).
5.1.2 Remarks for Multi Correspondence Analysis

“Confirmation” of Q6⑤(Able to collect news and information efficiently), Q12⑤(Enrich the collection of information) and “Expression” of Q6⑧(Able to let others know about myself well), Q12⑧(To disclose the information of himself/herself) are located in the distant way and they have few relationship, which can be seen Figure 13 and Figure 14. Common theme is to share sympathy in society, which can be observed in Figure 13 and Figure 16. As for non-users, minus item can be seen in Q11 (Why don’t you use the SNS?) owing to the indifference. But the Figure 17 shows that the non-users have demands for relationship, attendance, Share & Spread. Therefore they have a probability to shift to users if anxiety items are resolved.

5.2 The Analysis by the Factor Analysis

5.2.1 Execution of Analysis

Factor Analysis is executed so as to extract viewpoints or axes for the appraisal concerning Q6 (What are the SNS’s interesting and fascinating points?), Q11 (Why don’t you use the SNS?) and Q12 (What do you expect the SNS in the future?). As for the extraction method of the factor, “the principal axis factoring” is adopted, and as for the rolling-method, “the varimax rotation which is accompanied by the normalization of kaiser as orthogonal rotation” is adopted. Also, we confirmed the validity of the model in the KMO (Kaisel-Meyer-Olkin) specimen validity measure. When the value is more than 0.8, it is said meritorious, more than 0.7 middling, more than 0.6, mediocre. Bartlett sphericity test is executed as well. If the score is less than 0.05, then it is said that there is a correlation among observation variables.

1) What are the SNS’s interesting and fascinating points? (Q6)

Table 6. What are the SNS’s interesting and fascinating points? (Q6)(factor matrix after rotation)

<table>
<thead>
<tr>
<th>Q6: What are the SNS’s interesting and fascinating points?</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Able to communicate with each other by diary and tweets</td>
<td>.134</td>
<td>.733</td>
<td>-.003</td>
</tr>
<tr>
<td>② Obtained much opportunities to contact with friends and acquaintances who were under rare contact</td>
<td>.042</td>
<td>.617</td>
<td>-.047</td>
</tr>
<tr>
<td>③ Able to find new friend who has the same hobby and interest via the Net</td>
<td>.611</td>
<td>.082</td>
<td>.174</td>
</tr>
<tr>
<td>④ Able to get a feeling of intimacy by browsing artists/ celebrities’ comments</td>
<td>.341</td>
<td>.048</td>
<td>.466</td>
</tr>
<tr>
<td>⑤ Able to collect news and information efficiently</td>
<td>.291</td>
<td>-.068</td>
<td>.170</td>
</tr>
<tr>
<td>⑥ Able to share sympathy by joining a group</td>
<td>.641</td>
<td>.173</td>
<td>.133</td>
</tr>
<tr>
<td>⑦ Able to share hobby and interests with friends and acquaintances</td>
<td>.680</td>
<td>.318</td>
<td>.037</td>
</tr>
<tr>
<td>⑧ Able to let others know about myself well</td>
<td>.539</td>
<td>.412</td>
<td>.151</td>
</tr>
<tr>
<td>⑨ Able to control the information for public, which is different from blog</td>
<td>.256</td>
<td>.329</td>
<td>.184</td>
</tr>
<tr>
<td>⑩ Able to retain the thinking of our own opinion and to make the record</td>
<td>.359</td>
<td>.320</td>
<td>.286</td>
</tr>
<tr>
<td>⑪ Rich online game</td>
<td>.140</td>
<td>-.041</td>
<td>.703</td>
</tr>
<tr>
<td>⑫ Good for killing time</td>
<td>.063</td>
<td>.058</td>
<td>.460</td>
</tr>
</tbody>
</table>

KMO measure is 0.798 and Bartlett Score is 0.000. We can confirm a rather appropriate common factor. From the Factor Matrix after rotation, we can extract 3 meaningful axes. We can see that the first axis is the factor about “Sympathy”, “Participation” and “Share & Spread” as the score for ③(Able to find new friend who has the same hobby and interest via the Net), ⑥(Able to share sympathy by joining a group) and ⑦(Able to share hobby and interests with friends and acquaintances) is high. Second axis is the factor about “Relationship” as the score for ①(Able to communicate with each other by diary and tweets) and ②(Obtained much opportunities to contact with friends and acquaintances who were under rare contact) is high, Third axis is the factor about “Function” as the score for ⑪(Rich online game) is high.
2) Why don’t you use the SNS? (Q11)

Table 7. Why don’t you use the SNS? (Q11) (factor matrix after rotation)

<table>
<thead>
<tr>
<th>Q11. Why don’t you use the SNS?</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Do not have interest</td>
<td>.116</td>
<td>-.103</td>
<td>.464</td>
</tr>
<tr>
<td>② Anxious about security concerning individual information</td>
<td>.405</td>
<td>.188</td>
<td>.155</td>
</tr>
<tr>
<td>③ Anxious about fee</td>
<td>.814</td>
<td>.108</td>
<td>.000</td>
</tr>
<tr>
<td>④ Surrounding people do not use them</td>
<td>.429</td>
<td>.143</td>
<td>.110</td>
</tr>
<tr>
<td>⑤ Become poor in human communication</td>
<td>.380</td>
<td>.421</td>
<td>.164</td>
</tr>
<tr>
<td>⑥ Will waist a lot of time</td>
<td>.205</td>
<td>.715</td>
<td>.018</td>
</tr>
<tr>
<td>⑦ Feel uneasy how friends and acquaintances make response</td>
<td>.201</td>
<td>.714</td>
<td>-.079</td>
</tr>
<tr>
<td>⑧ Cannot continue because it is too bothering</td>
<td>-.022</td>
<td>.084</td>
<td>.839</td>
</tr>
<tr>
<td>⑨ Likely to increase the spam e-mail</td>
<td>.385</td>
<td>.211</td>
<td>.423</td>
</tr>
</tbody>
</table>

KMO measure is 0.690 and Bartlett score is 0.000. We can confirm an ordinary common factor. From the Factor Matrix after rotation, we can extract 3 meaningful axes. We can see that the first axis is the factor about “Anxiety for communication tool” (④ (Anxious about fee)). Second axis is the factor about “Fatigue in soul and anxiety for human relationship” (⑦ (Will waist a lot of time), ⑧ (Feel uneasy how friends and acquaintances make response)). Third axis is the factor about “Anxiety for operation” (⑨ (Cannot continue because it is too bothering)).

3) What do you expect the SNS in the future? (Q12)

Table 8. What do you expect the SNS in the future? (Q12) (factor matrix after rotation)

<table>
<thead>
<tr>
<th>Q12. What do you expect the SNS in the future?</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Make full communication with friends and acquaintances</td>
<td>.124</td>
<td>.224</td>
<td>.742</td>
<td>.184</td>
</tr>
<tr>
<td>② Want to seek old friends, acquaintances and new friends</td>
<td>.073</td>
<td>.160</td>
<td>.733</td>
<td>.309</td>
</tr>
<tr>
<td>③ Encounter the friend/lover of opposite sex</td>
<td>.025</td>
<td>-.025</td>
<td>.190</td>
<td>.498</td>
</tr>
<tr>
<td>④ Provide the valuable information</td>
<td>.799</td>
<td>.219</td>
<td>.125</td>
<td>.148</td>
</tr>
<tr>
<td>⑤ Enrich the collection of information</td>
<td>.865</td>
<td>.158</td>
<td>.092</td>
<td>.109</td>
</tr>
<tr>
<td>⑥ Have a space/field for exchanging opinion about goods, service and politics</td>
<td>.304</td>
<td>.213</td>
<td>.037</td>
<td>.609</td>
</tr>
<tr>
<td>⑦ Gather interesting information</td>
<td>.601</td>
<td>.227</td>
<td>.047</td>
<td>.238</td>
</tr>
<tr>
<td>⑧ To disclose the information of himself/herself</td>
<td>.157</td>
<td>.118</td>
<td>.184</td>
<td>.539</td>
</tr>
<tr>
<td>⑨ To make perfect the security of individual information</td>
<td>.196</td>
<td>.568</td>
<td>.062</td>
<td>-.013</td>
</tr>
<tr>
<td>⑩ Easiness in using</td>
<td>.250</td>
<td>.596</td>
<td>.285</td>
<td>.005</td>
</tr>
<tr>
<td>⑪ Restrict the writing in board by others</td>
<td>.106</td>
<td>.643</td>
<td>.100</td>
<td>.210</td>
</tr>
<tr>
<td>⑫ Interconnection among SNS functions</td>
<td>.103</td>
<td>.436</td>
<td>.135</td>
<td>.347</td>
</tr>
</tbody>
</table>

KMO measure is 0.814 and Bartlett score is 0.000. We can confirm an appropriate common factor. From the Factor Matrix after rotation, we can extract 4 meaningful axes. We can see that the first axis is the factor about “Sympathy”, “Identify” and “Share & Spread” (④ (Provide the valuable information), ⑤ (Enrich the collection of information), ⑦ (Gather interesting information)). Second axis is the factor about “Function” (⑩ (Easiness in using), ⑪ (Restrict the writing in board by others)). Third axis is the factor about “Relationship” (① (Make full communication with friends and acquaintances), ② (Want to seek old friends, acquaintances and new friends)). Forth axis is the factor about “Participation” (⑥ (Have a space/field for exchanging opinion about goods, service and politics)).
4) Difference between users and non-users in Q12

Table 9. Users’ expecting items for SNS in the future (factor matrix after rotation)

<table>
<thead>
<tr>
<th>Q12. What do you expect the SNS in the future?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Make full communication with friends and acquaintances</td>
<td>.045</td>
<td>.242</td>
<td>.692</td>
<td>.150</td>
</tr>
<tr>
<td>② Want to seek old friends, acquaintances and new friends</td>
<td>.065</td>
<td>.086</td>
<td>.785</td>
<td>.285</td>
</tr>
<tr>
<td>③ Encounter the friend/lover of opposite sex</td>
<td>.013</td>
<td>-.048</td>
<td>.184</td>
<td>.458</td>
</tr>
<tr>
<td>④ Provide the valuable information</td>
<td>.778</td>
<td>.222</td>
<td>.086</td>
<td>.141</td>
</tr>
<tr>
<td>⑤ Enrich the collection of information</td>
<td>.875</td>
<td>.076</td>
<td>.060</td>
<td>.101</td>
</tr>
<tr>
<td>⑥ Have a space/ field for exchanging opinion about goods, service and politics</td>
<td>.261</td>
<td>.209</td>
<td>-.001</td>
<td>.582</td>
</tr>
<tr>
<td>⑦ Gather interesting information</td>
<td>.576</td>
<td>.220</td>
<td>.009</td>
<td>.163</td>
</tr>
<tr>
<td>⑧ To disclose the information of himself/herself</td>
<td>.123</td>
<td>.092</td>
<td>.160</td>
<td>.523</td>
</tr>
<tr>
<td>⑨ To make perfect the security of individual information</td>
<td>.132</td>
<td>.516</td>
<td>.027</td>
<td>.029</td>
</tr>
<tr>
<td>⑩ Easiness in using</td>
<td>.164</td>
<td>.490</td>
<td>.204</td>
<td>-.034</td>
</tr>
<tr>
<td>⑪ Restrict the writing in board by others</td>
<td>.094</td>
<td>.612</td>
<td>.071</td>
<td>.146</td>
</tr>
<tr>
<td>⑫ Interconnection among SNS functions</td>
<td>.090</td>
<td>.355</td>
<td>.118</td>
<td>.301</td>
</tr>
</tbody>
</table>

KMO measure is 0.758 and Bartlett score is 0.000 in Table 11. We can confirm a rather appropriate common factor. From the Factor Matrix after rotation, we can extract 4 meaningful axes. We can see that the first axis is the factor about “Sympathy” and “Identify” (④(Provide the valuable information), ⑤(Enrich the collection of information)). Second axis is the factor about “Function” (⑪(Restrict the writing in board by others)). Third axis is the factor about “Relationship” (①(Make full communication with friends and acquaintances), ②(Want to seek old friends, acquaintances and new friends)). Fourth axis is the factor about “Participation” (⑥(Have a space/ field for exchanging opinion about goods, service and politics)).

Table 10. Non-users’ expecting items for SNS in the future (factor matrix after rotation)

<table>
<thead>
<tr>
<th>Q12. What do you expect the SNS in the future?</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Make full communication with friends and acquaintances</td>
<td>-.046</td>
<td>.290</td>
</tr>
<tr>
<td>② Want to seek old friends, acquaintances and new friends</td>
<td>-.077</td>
<td>.267</td>
</tr>
<tr>
<td>③ Encounter the friend/lover of opposite sex</td>
<td>-.123</td>
<td>.317</td>
</tr>
<tr>
<td>④ Provide the valuable information</td>
<td>.146</td>
<td>.014</td>
</tr>
<tr>
<td>⑤ Enrich the collection of information</td>
<td>.190</td>
<td>-.040</td>
</tr>
<tr>
<td>⑥ Have a space/ field for exchanging opinion about goods, service and politics</td>
<td>.034</td>
<td>.169</td>
</tr>
<tr>
<td>⑦ Gather interesting information</td>
<td>.110</td>
<td>.035</td>
</tr>
<tr>
<td>⑧ To disclose the information of himself/herself</td>
<td>-.019</td>
<td>.147</td>
</tr>
<tr>
<td>⑨ To make perfect the security of individual information</td>
<td>.313</td>
<td>-.194</td>
</tr>
<tr>
<td>⑩ Easiness in using</td>
<td>.218</td>
<td>-.007</td>
</tr>
<tr>
<td>⑪ Restrict the writing in board by others</td>
<td>.163</td>
<td>-.024</td>
</tr>
<tr>
<td>⑫ Interconnection among SNS functions</td>
<td>.105</td>
<td>.040</td>
</tr>
</tbody>
</table>

In Table 10, KMO measure is 0.885 and Bartlett score is 0.000. We can confirm an appropriate common factor. First axis would mean “Function” (⑨(To make perfect the security of individual information)). Second axis would mean “Anxiety for relationship” (②(Want to seek old friends, acquaintances and new friends)).

5.2.2 Remarks for Factor Analysis

Factors for Q6 (What are the SNS’s interesting and fascinating points?) and Q12 (What do you expect the SNS in the future?) are arranged in Table 11.
Table 11. Factors for Q6 (What are the SNS’s interesting and fascinating points?) and Q12 (What do you expect the SNS in the future?)

<table>
<thead>
<tr>
<th>Q6: What are the SNS’s interesting and fascinating points?</th>
<th>Q12. What do you expect the SNS in the future?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>Sympathy</td>
<td>Sympathy</td>
</tr>
<tr>
<td>Participation</td>
<td>Identify</td>
</tr>
<tr>
<td>Share &amp; Spread</td>
<td>Function</td>
</tr>
<tr>
<td>Relationship Function</td>
<td>Relationship</td>
</tr>
<tr>
<td>Participation</td>
<td>Participation</td>
</tr>
<tr>
<td>Share &amp; Spread</td>
<td>Share &amp; Spread</td>
</tr>
</tbody>
</table>

As is shown in Table 11, we can confirm the combination of common factors between Q6 and Q12. One is “Relationship” and another one is “Function”. “Participation” which is the first factor in Q6 is replaced into “Identify” in Q12. This implies that after confirming the profile of friend and goods, they proceed to the “Participation” stage. Thus, effective approach is considered by these combinations in demand and action.

5.3 The Analysis by the Quantification Method II

5.3.1 Execution of Analysis
Quantification Method II is executed in order to grasp the contribution to the usage of SNS. Outer criteria is set “Use or do not use SNS”. Explanation variables are set for each question number of Q12. The discriminate hitting ratio is 66.9%. It is rather good in this case. Utilizing the result of coefficient of canonical discrimination function, discrimination equation of outer criteria can be stated as follows.

\[
Z = -1.344 + 0.596Q_{1201} - 0.038Q_{1202} - 0.181Q_{1203} + 0.304Q_{1204} + 0.172Q_{1205} \\
- 0.128Q_{1206} - 0.089Q_{1207} + 0.169Q_{1208} - 0.243Q_{1209} + 0.525Q_{1210} - 0.170Q_{1211} \\
- 0.232Q_{1212}
\]

Where question number is added to Q12**, for example, Q1209 means that question number is 9 in Q12.

![Figure 18. Influence of demand item for SNS](image)

5.3.2 Remarks for Quantification Method II Analysis
From Figure 18, we can observe that big contribution is achieved by the following items. First, (Make full communication with friends and acquaintances). Second, (Easiness in using). Third, (Provide the valuable information). Fourth, (To make perfect the security of individual information). Fifth, (Interconnection among SNS functions). From these, we can see that “Relationship”, “Function”, “Sympathy”, “Identify” and “Expression” are important factors in utilizing SNS. “Relationship”, “Sympathy” and “Expression”, which are listed in the former study, are all included.

6. Analysis Using Key Graph
Key Graph Method is to clarify the data structure by using key words. Data occurrences at the same period of time are exhibited by the link of Key Graph.

1) Used SNS and their using frequency (Q2-Q3)
The Key Graph Analysis is executed by utilizing Q2 (How often do you use the SNS?) and Q3 (What kind of the
SNS do you use?). The occurrence rate and co-occurrence rate are important measures. From Figure 19, we can see that “More than 5 times a day” has the high co-occurrence rate with “Facebook”, “mixi”, “Twitter”, “You Tube” and “Niconico β”, while “Around 3-4 times a day” with “Facebook”, “mixi” and “You Tube”, furthermore “Around 1-2 times a day” with “Facebook”, “Twitter” and “You Tube”. Among them, Integrated Genre and Moving Picture Genre were used well.

![Figure 19. Used SNS and their using frequency](image)

2) Attributes and Mostly Using SNS and Its Reason (Q13-14-15-16, Q4-5)

Q4 (What kind of the SNS do you use the most?), Q5 (Why is it?), Q13(Gender), Q14(Age), Q15(Occupation) and Q16(Address) are analyzed altogether. From Figure 20, we can see that one big cluster is formed. “Male”, “Female”, “-30”, “-40”, “Company employee” and “Kansai” have the high co-concurrency rate. As for SNS site, “Facebook” and its selecting reason “Relationship”, “Share & Spread” factors are extracted.

![Figure 20. Attributes and mostly using SNS and its reason](image)

3) Attributes and the Reason for Commencement of SNS (Q13-14-15, Q3, Q7)

Q3 (What kind of the SNS do you use?), Q7 (How did you come to use the SNS?), Q13 (Gender), Q14 (Age) and Q15 (Occupation) are analyzed altogether. From Figure 21, we can observe that two clusters are formed. For the first cluster, “Male”, “Female”, “-20”, “-30”, “-40”, “Student” and “Company employee” have the high co-occurrence rate. They use “Facebook”, “mixi”, “Twitter” and “You Tube” with the commencement reason “Identify” factor. Integrated genre and Moving Picture Genre have the similar commencement reason. For the second cluster, “-60” and “Part-timers” have the high co-occurrence rate. They use “Ameba” and “Ameba pico”. Housewives mainly use them as a diary. “-60” has the high co-occurrence rate with “-50”, “School teacher/staff” and “Independents”. They use “Niconico β” and “Ustream” with the commencement reason, “Utilize in Business” and “To apply for the campaign”.

![Figure 21. Attributes and the reason for commencement of SNS](image)
7. Analysis by “Text Analytics for Surveys”

We can extract keywords which have high co-occurrence rate by utilizing the Key Graph Analysis Method. The co-occurrence condition is exhibited by Key Graph and we can classify the data by the Key Graph Clusters. Now, we make analysis utilizing “Text Analytics for Surveys” by focusing important keywords found in Key Graph.

Two clusters, which is analyzed in 6.3) Attributes and the Reason for Commencement of SNS (Q13-14-15, Q3, Q7), are analyzed as follows.

In Figure 22, we make focus on “Confirmation” Factor for the 1st cluster, which is in the question item “To collect information”. We can confirm from this Figure that keyword which has strong correlation with “To collect information” is “Male”, “-40” and “Company employee” and the site used is “Facebook”, “mixi” and “You Tube”.

In Figure 23, we make focus on “Utilize in Business” Factor for the 2nd cluster. We can confirm from this Figure that keyword which has strong correlation with “To collect information” is “-50” and “Independents” and the site used is “Ameba”, “Ameba pico”, “Niconico β” and “Ustream”.

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Figure 21. Attributes and the reason for commencement of SNS

Figure 22. Attributes and the reason for commencement of SNS (1st cluster)

Figure 23. Attributes and the reason for commencement of SNS (the 2nd cluster)
8. Conclusion

Social Networking Service (SNS) have become widely used in Japan in recent years.

In this paper, a questionnaire investigation was executed to SNS users and non-users in order to grasp its usage condition and examine expected psychological desire/function etc. systematically. Multi Correspondence Analysis, Quantitative Analysis and Text Mining Analysis were utilized for the analysis. By combining these methods effectively, we could make clear the important points and future expectations etc. systematically while using SNS.

As a result, we could confirm the following major items.

(1) We can observe that 78% people use the SNS every day.

(2) The usage of Facebook, mixi and Twitter, which are the genre of Integrated SNS, are frequently used and You Tube (one of the moving picture SNS) is the same.

(3) We can observe that big contribution is achieved by the following items. First, (1)(Make full communication with friends and acquaintances). Second, (2)(Easiness in using). Third, (3)(Provide the valuable information). Fourth, (4)(To make perfect the security of individual information). Fifth, (5)(Interconnection among SNS functions). From these, we can see that “Relationship”, “Function”, “Sympathy”, “Identify” and “Expression” are important factors in utilizing SNS. “Relationship”, “Sympathy” and “Expression”, which are listed in the former study, are all included.

(4) We can observe that “(7)To make perfect the security of individual information” is the most and then“(6)Easiness in using” “(5)Enrich the collection of information” and “(1)Make full communication with friends and acquaintances” follow. Both users and non-users want to resolve the security anxiety at first. They also want to have easiness of handling. SNS which meet these requests will develop.

(5) We can confirm the combination of common factors between Q6 and Q12. One is “Relationship” and another one is “Function”. “Participation” which is the first factor in Q6 is replaced into “Identify” in Q12. This implies that after confirming the profile of friend and goods, they proceed to the “Participation” stage. Thus, effective approach is considered by these combinations in demand and action.

Much more easy access to SNS is enabled by using smart-phone and tablet terminal from now on. Some of SNS will be selected unless they have particularly strengthened function. Users will also be divided into the group to the objective they seek. “Effective Utility of SNS” is required as for enterprise marketing tool.

Our various findings and knowledge obtained in this research will contribute to these issues effectively.

Systematic research investigation for SNS is still on the beginning stage. Such demonstrative research as this should be further developed with the increased case studies.

References


Samuel Roland Hall. (2009). Writing an Advertisement; An Analysis of the Methods and the Mental Processes
That Play a Part in the Writing of Successful Advertising. General Books LLC.


Appendix

Questionnaire concerning the SNS

Please answer the following questions. Please write down ○ to the answering items. Plural selection is allowed for the Question 3, 5, 7, 9, 10. Select ①~⑤ of the right column for the Question 6, 11, 12.

1. Do you use the SNS?

| Q1 | ①YES | ②NO* If you answer “②NO”, then proceed to Q11, please. |

2. How often do you use the SNS?

| Q2 | ①More than 5 times a day | ②Around 3~4 times a day | ③Around 1~2 times a day |
|    | ④Around 4~5 times a week | ⑤Around 2~3 times a week | ⑥Around 1 times a week |
|    | ⑦Around 2~3 times a month | ⑧Around 1 times a month | ⑨Less than that |

3. What kind of the SNS do you use?

| Q3 | ①Facebook | ②mixi | ③Twitter | ④Google+ | ⑤YouTube | ⑥Niconico | ⑦Ustream | ⑧GREE |
|    | ⑨Mobage | ⑩Hangame | ⑪Ameba | ⑫Taberogu | ⑬KAKAKU.com | ⑭Ameba pico | ⑮myspace | ⑯foursquare |
|    | ⑰Orkut | ⑱PowerLink | ⑲Life Shot | ⑳Miscellaneous |

4. What kind of the SNS do you use the most?

( )

5. Why is it?

| Q5 | ①Able to communicate with friends and acquaintances |
|    | ②Able to seek old friends and acquaintances |
|    | ③Able to seek new friends and acquaintances |
|    | ④Able to agree with/appreciate the valuable information |
|    | ⑤Able to collect special and delightful information |
|    | ⑥Able to browse artists’ celebrities’ comments |
|    | ⑦Able to apply for the campaign |
|    | ⑧Able to collect/put out the company’s services and service information |
|    | ⑨Able to collect/put out hobby and interesting information |
|    | ⑩Able to post diary, tweets, moving images and photos |
|    | ⑪Able to play the game (including the online game) |
|    | ⑫Miscellaneous ( ) |
6. What are the SNS’s interesting and fascinating points?

<table>
<thead>
<tr>
<th>Q6</th>
<th>Able to communicate with each other by diary and tweets</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Obtained much opportunities to contact with friends and acquaintances who were under rare contact</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Able to find new friend who has the same hobby and interest via the Net</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Able to get a feeling of intimacy by browsing artists'/ celebrities' comments</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Able to collect news and information efficiently</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Able to share sympathy by joining a group</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Able to share hobby and interests with friends and acquaintances</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Able to let others know about myself well</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Able to control the information for public, which is different from blog</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Able to retain the thinking of our own opinion and to make the record</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rich online game</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Good for killing time</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Miscellaneous ()</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. How did you come to use the SNS?

<table>
<thead>
<tr>
<th>Q7</th>
<th>To create a new network</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree with/ appreciate the valuable information</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To collect information</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Utilize to my business</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To apply for the campaign</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To Put out and share the information</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound like fun by posting everything</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More easy to handle than those by phone and e-mail</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suggestion by the friends and acquaintances</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acquaintances and friends use them</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Became current topics</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Miscellaneous ()</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. How often do you reply to the comments or share photos and news?

| Q8 | Every time | 1 | 2 | 3 | 4 | 5 |

9. What kind of the SNS are you going to continue to use?

| Q9 | Facebook | 1 |  |  |  |  |
|    | mixi | 2 |  |  |  |  |
|    | Twitter | 3 |  |  |  |  |
|    | Google+ | 4 |  |  |  |  |
|    | YouTube | 5 |  |  |  |  |
|    | Niconico | 6 |  |  |  |  |
|    | Ustream | 7 |  |  |  |  |
|    | GREE | 8 |  |  |  |  |
|    | Mobage | 9 |  |  |  |  |
|    | Hangame | 10 |  |  |  |  |
|    | Ameba | 11 |  |  |  |  |
|    | Taberogu | 12 |  |  |  |  |
|    | KAKAKU.com | 13 |  |  |  |  |
|    | Ameba pico | 14 |  |  |  |  |
|    | myspace | 15 |  |  |  |  |
|    | foursquare | 16 |  |  |  |  |
|    | Orkut | 17 |  |  |  |  |
|    | PowerLink | 18 |  |  |  |  |
|    | Life Shot | 19 |  |  |  |  |
|    | Miscellaneous () | 20 |  |  |  |  |
10. Why is it?

<table>
<thead>
<tr>
<th>Q10</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>①</td>
<td>Want to enrich communication with friends and acquaintances</td>
</tr>
<tr>
<td>②</td>
<td>Want to seek old friends and acquaintances</td>
</tr>
<tr>
<td>③</td>
<td>Want to seek new friends and acquaintances</td>
</tr>
<tr>
<td>④</td>
<td>Want to agree with/appreciate the valuable information</td>
</tr>
<tr>
<td>⑤</td>
<td>Want to collect beneficial and delightful information</td>
</tr>
<tr>
<td>⑥</td>
<td>Want to browse artists/celebrities’ comments</td>
</tr>
<tr>
<td>⑦</td>
<td>Want to apply for the campaign</td>
</tr>
<tr>
<td>⑧</td>
<td>Want to collect/put out the company’s services and service information</td>
</tr>
<tr>
<td>⑨</td>
<td>Want to collect/put out hobby and interesting information</td>
</tr>
<tr>
<td>⑩</td>
<td>Want to continue posting diary, tweets, moving images and photos</td>
</tr>
<tr>
<td>⑪</td>
<td>Want to play the new game (including the online game)</td>
</tr>
<tr>
<td>⑫</td>
<td>Miscellaneous ()</td>
</tr>
</tbody>
</table>

11. Why don’t you use the SNS?

<table>
<thead>
<tr>
<th>Q11</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>①</td>
<td>Do not have interest</td>
</tr>
<tr>
<td>②</td>
<td>Interesting but do not know how to use</td>
</tr>
<tr>
<td>③</td>
<td>Anxious about security concerning individual information</td>
</tr>
<tr>
<td>④</td>
<td>Anxious about fee</td>
</tr>
<tr>
<td>⑤</td>
<td>Surrounding people do not use them</td>
</tr>
<tr>
<td>⑥</td>
<td>Become poor in human communication</td>
</tr>
<tr>
<td>⑦</td>
<td>Will waste a lot of time</td>
</tr>
<tr>
<td>⑧</td>
<td>Feel uneasy how friends and acquaintances make response</td>
</tr>
<tr>
<td>⑨</td>
<td>Cannot continue because it is too bothering</td>
</tr>
<tr>
<td>⑩</td>
<td>Likely to increase the spam e-mail</td>
</tr>
<tr>
<td>⑪</td>
<td>Miscellaneous ()</td>
</tr>
</tbody>
</table>
12. What do you expect the SNS in the future?

<table>
<thead>
<tr>
<th>Importance</th>
<th>Think so very much</th>
<th>Slightly think so</th>
<th>Ordinary level</th>
<th>Slightly not think so</th>
<th>Do not think so</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q12</td>
<td>Make full communication with friends and acquaintances</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Want to seek old friends, acquaintances and new friends</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Encounter the friend/lover of opposite sex</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Provide the valuable information</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Enrich the collection of information</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Have a space/field for exchanging opinion about goods, service and politics</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Gather interesting information</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>To disclose the information of himself</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>To make perfect the security of individual information</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Easiness in using</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Restrict the writing in board by others</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Interconnection among SNS functions</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
<tr>
<td></td>
<td>Miscellaneous ()</td>
<td>①</td>
<td>②</td>
<td>③</td>
<td>④</td>
</tr>
</tbody>
</table>

About yourself

Q13 <Gender> ① Male ② Female
Q14 <Age> ( ) years old
Q15 <Occupation> ① Student ② Government Employee ③ Company Employee ④ School Teacher/Staff ⑤ Clerk of Organization ⑥ Independents ⑦ Temporary Employee ⑧ Part-timers ⑨ Miscellaneous ()
Q16 <Address> Prefecture : () City : ()
Q17 <Are you married?> ① Married ② Single
Q18 <How many children do you have?> ( )
Q19 <Are you positive to do anything?> ① Positive ② Somewhat positive ③ Ordinary level ④ Somewhat passive ⑤ Not positive
Q20 <Do you like to play with many others?> ① Think so very much ② Slightly think so ③ Ordinary level ④ Slightly not think so ⑤ Do not think so
Q21 <How do you spend holidays?> ① Outdoor ② Indoor ③ Cannot choose either
Q22 <What is the most important thing to you?> ① Affection ② Safety and security ③ Honor ④ Clothes/Eating/House ⑤ Self-realization ⑥ Contribution to society ⑦ Recognized from others ⑧ Miscellaneous ()
The figure below is an on-line data gathering Form for Questionnaire Investigation.

Figure 24. On-line data gathering form for questionnaire investigation, https://docs.google.com