

Designing a Multi-Stakeholder Satisfaction Service for Group-Based Social Gift Service

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Abstract: This research developed a service concept, “A Multi-Stakeholder Satisfaction Service”, for a group-based social gift service using marketing research and an iterative process of service design and research in order to specify an appropriate service model for an online flower gift service aimed at increasing flower consumption among younger generations. This is a service that satisfies multiple stakeholders, comprising an “organizer” who plans an event in this group-based social gift service, “friends” who participate in the event, and a “guest” who is celebrated at the event. This concept is based on the hypothesis that all of these stakeholders will be encouraged to use the service repeatedly if they are satisfied. After conducting several rounds of design and research, the authors developed three approaches, developing the concepts of “message bouquets” (mini bouquets with different stories), “themed bouquets” (a set of seven message bouquets with different themes reflecting the guests’ characteristics), and a “virtual bouquet” (a bouquet type message board composed of message bouquets bought by the friends). Through these approaches, the authors implemented a social flower gift web service, called “Bouquet”. As the results of the user study show, the organizers, friends and guests were satisfied with this service, demonstrating that these three approaches are effective.

1. Introduction

The total consumption of flowers in Japan reached its peak in 2000 and has been decreasing since then [5, p.1]. One of the reasons is that the companies have become more cost conscious due to depressed business and the consumption of flowers as gifts or office displays has been decreasing, as has the amount of personal usage. As a result, flower companies in Japan started E-commerce relatively earlier than other companies to expand flower-related consumption. However, gaps in consumption among the generations are considerable. For example, the consumption of those younger than 30 years old is lower by more than 50% compared with other generations [5, p.13].

The authors started a collaborative project with one of the leading flower companies, Internet HANA-cupid (i879 Co., Ltd) [4], in order to expand flower consumption among young people. i879 Co., Ltd is a company with a network of about 4000 flower shops in Japan and it has already developed a system whereby flowers bought by the customers will be sent to them by the shop closest to the destination. Thus, if a user living in Tokyo wants to send flowers to a friend in Osaka, delivery will take only 0–2 days using i879’s network system, rather than the 2–4 days it would take using a delivery service from Tokyo.

In November 2011, the authors conducted marketing research concerning flower consumption with a sample of 300 people aged from their teens to their thirties. The sampling frame was restricted in relation to the respondents’ occupation. The respondents were divided into two groups: 150 undergraduate students and 150 workers all living near Tokyo. In total there were 25 questions of which 20 were multiple choice questions concerning their profile, usage of social networking services (SNS), and usage of online shopping for flower gifts and so on, and five were free description questionnaires about instances of giving flowers. Of the 300 respondents, 48% were male and 52% female.

The results of the questionnaires showed the respondents’ selection criteria when sending flower gifts. The most dominant criterion was colour at 78% and this was the only option chosen that reached over 50%. The second choice was flower variety at 44% and recommendations from flower shops was 42%. The language of flowers was the option chosen least at 7%. Next we asked about the usage of flower gifts, especially the number of members in one group and the cost per person. When asked about the number of

members in a group, those respondents who had experience of sending flowers in a group, the top response of both the workers (30%) and the students (32%) was 6–10 members. In addition, when the same respondents were asked about the cost per person, the top answer of the workers (39%) was 501–1000 yen, and the top answer of the students (40%) was 0–500 yen.

The questionnaire then asked about usage of SNS, the amount of money they were willing to spend, and sending flower gifts using SNS. With regard to usage of SNS, 39% of respondents gave Facebook as “the most frequent SNS” used and 20% gave Facebook as “the second most frequent SNS” used. Based on these results, it seems that Facebook is the most popular SNS compared with Twitter and mixi. Concerning the amount of money they would be willing to spend, the respondents reported they would be prepared to spend more than 3,000 yen on gifts for 7.4% of their friends, but more than 500 yen on 22% of their friends. Finally, when it came to sending flower gifts using SNS, 37% of respondents answered that they wanted to send flower gifts on a one-to-one basis whereas 63% answered that they wanted to send flower gifts as a member of a group.

Based on these findings, this project started to develop an online flower gift service to expand flower consumption for teenagers through to those in their thirties. This project started with an idea for a flower gift service using social graphs of existing SNS. This service targets a small group and the customer can buy flowers from 500 yen or by making a micropayment.

2. Related Research

2.1 Existing services

There are already several services globally that take the same approach as that adopted in this project which offers a group-based social gift service using micropayments by group based on social graphs. The group-based social gift service has three stakeholders: an “organizer” to organize events, “friends” to participate in the events, and a “guest” to be celebrated in the events. This section provides an overview of services already available, sets out the service model, and describes how the stakeholders are handled in each case.

Social Gift [9] is a service through which the users can purchase a gift with friends. This service adopts a model whereby an organizer of an event selects a gift and makes each payment smaller by inviting friends to join in the event. For example, if the user wants to give a 10,000 yen digital camera, by inviting four friends each will only pay 2,000 yen. This service model focuses primarily on the satisfaction of the organizers as they can choose the gifts; the friends are essentially recruited as a means of payment.

Happy flower [1] is a social gift service focusing on flowers. As with Social Gift, the organizers start events and invite friends to participate. However, in this case, friends can purchase their favourite flower, such as a rose or gerbera, starting at 500 yen for 1 item. If an organizer can collect more than 10 items, a bouquet will be sent to the guest. This service model focuses primarily on the satisfaction of those participating in the events since the priority is the ability for the friends to purchase their favourite flowers. In contrast, the satisfaction of the guest is not prioritized. If the colours of the flowers are entirely complementary (the same) or there are more than four colours in a bouquet (too diverse), the bouquet sent to the guest will not be beautiful and the satisfaction of the guest will be lower.

2.2 Service model

The authors conducted a literature review of existing service models to develop that employed in this project. This section introduces typical service models in service marketing, service management, engineering and economics.

In the field of service marketing, Shostack developed the molecular model [7] which is composed of an intangible element and tangible elements. Tangible elements are further divided into essential evidence and peripheral evidence, where evidence means all of the objects which the users can perceive with five senses. Shostack expanded this concept and developed the service blueprint [8], a flow chart technique to help users design services systematically and a model to describe the service process to the customers based on touch points.

Edvardsson and Olsson developed a model in service management comprising three key concepts for service development [2]. These key concepts are customer process, customer outcome and service prerequisites. The concept of service prerequisites includes three elements: service concept, composed of primary needs and secondary needs; service process; service system, consisting of staff, customers, organization and control, and the physical/technical environment.

Ramaswamy developed a framework for service design and management in the field of engineering focusing on service process [6]. This framework distinguishes between several stages in the service process, and describes inputs from customers and outputs from the service provider. Each stage has sub-processes, and each sub-process has two elements: design dimensions and alternatives, and engineering requirements.

In economics, Gallouj and Weinstein developed a characteristics-based model of service which is composed of four characteristics [3]: service characteristics (Y), technical characteristics (X), provider competences (C), and client competences (C'). Technical characteristics (X) are further divided into tangible and intangible. Gallouj and Weinstein contend that service innovation is a change achieved by one or more of these characteristics.

Although the group-based social gift service which this research proposes is an online service, it is also one that sends actual bouquets to the guests and thus it needs a service model which includes face-to-face communication. Also, this project adopts a design process to extract hidden needs from customers through continuous cycles between hypothesis development and evaluation, and to reflect these in the service. Based on these requirements, this paper describes the service using the service model of Edvardsson and Olsson [2].

3. Approach

3.1 Service concept and hypothesis

Based on prior research, the authors derived a main hypothesis that a service employing micropayments by group using social graphs – a group-based social gift service – would gain continuous use by satisfying three user groups: an organizer to organize events, friends to participate in the events, and a guest to be celebrated in the events. This is because these three user groups will be candidates to take on the roles of organizer and/or friends in other events and must be satisfied at the first usage. This paper terms this service concept “a multi-stakeholder satisfaction service”.

3.2 Process of service design: research stages

3.2.1 Service design: first phase

Based on the results of the marketing research and analysis of prior services, the authors developed an early design in relation to the approach to achieve a multi-stakeholder satisfaction service. This section primarily describes some of the characteristics of approaches adopted in developing this service.

A restriction imposed by the collaborating company was that this service excluded a function enabling the customers to purchase specific flowers because the number of flowers which the customers can purchase through a whole year is limited.

In terms of login, the service adopted functionality via Facebook and mixi, these being the most popular SNS in Japan, in order to increase the convenience afforded to organizers and friends. This also aims to target users in their teens to their thirties and to incorporate existing social graphs into the service.

The service established five steps for organizing events by considering the load on organizers: step 1, the organizers select a guest; step 2, they input information about the guest; step 3, they select the type of event; step 4, they decide when the gift will be sent; step 5, they invite their friends to the event.

In relation to purchasing flowers, the service adopted an approach to selecting a colour or colours to suit a guest based on the user's needs gleaned from the marketing research. In this phase, the authors set six options (red, orange, pink, blue, white, mixed colours) with illustrated graphical icons (Figure 1).



Figure1. Flower purchase interface – colour selection to suit a guest

Based on the users' needs derived from the marketing research, we set the minimum price of flowers at 300 yen to achieve micropayment and a requirement of more than eight users for the event to be realized. This specification aims to ensure that groups composed of a small number of members will be the main users.

We also designed a message board called “virtual bouquet” (Figure 2). This is based on the phenomenon that many messages appear on friends' timelines in SNS when there is cause for celebration. Here, each message typed by a user is expressed as a motion graphic with a flower motif (virtual flower). When the guests position their mouse on the motif, the message expands from the shape. The colour of the flower depends on that purchased and the size of the virtual flower changes depending on the number of flowers

purchased by the user. This function aims make the purchase of flowers fun for the friends and to give the guest a surprise on receipt of the messages.

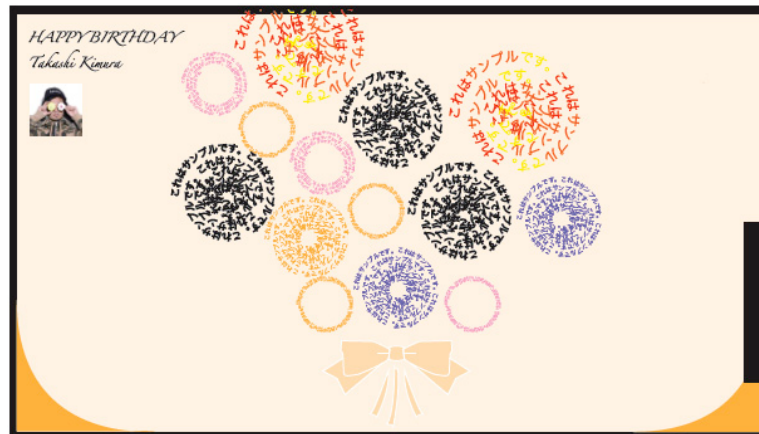


Figure 2. Image of a virtual bouquet with virtual flowers (version 1.0)

Finally, the colour of the bouquet sent to the guest will be decided based on the colour ratio of the total number of flowers which the users in the same group purchased. This specification is based on the finding of the marketing research which let the users choose flowers based on colour and meets the restriction imposed by the collaborating company.

3.2.2 Research: first phase

After developing the initial concept, the authors designed the main images for the service and developed paper prototypes. Using these, the authors conducted a study in December 2011 with three undergraduate students and three workers, all in their twenties. The ratio between male and female was 1:1. All the participants experienced sending flowers and organizing events to send gifts with their friends.

In terms of login, five of the six participants were familiar with Facebook but had rarely logged into mixi. Only one undergraduate student used mixi frequently. In addition, they considered Twitter less intimate in relation to this service because it did not reflect their actual relationships.

Four of the six participants said that they felt that five steps were rather too many in terms of organizing an event. They considered that the page was rather messy when it showed five steps in the first phase and three steps was the borderline for ease of use.

In terms of purchasing flowers, five of the six participants preferred photorealistic icons to illustrated icons. They could not see how the colours they chose would be reflected in the actual bouquet and they could not envisage the final image. In addition, four of the six participants said that they could not understand why this service let the users choose only colours.

Concerning the virtual bouquet, the answers from the participants were equally divided in terms of preference for the motion graphical expression with text and the photorealistic expression. They felt that the text expression was interesting but that it was not elegant.

3.2.3 Service design: second phase

Based on the piloting of the first service design, the authors made modifications, especially in terms of the login, organizing events, purchasing flowers, the virtual bouquet and the actual bouquet.

Concerning login, we limited functionality to Facebook for existing SNS but also adopted original ID to encourage those who rarely use SNS in their daily lives to use the service.

The steps involved in organizing events were modified to only three: step 1, the organizer identifies both a guest and the cause of celebration; step 2, the users fill in the event information; step 3, they decide how to send the gifts, i.e. whether the organizer or guest will receive the bouquet and the date when the bouquet will be sent.

Purchasing flowers was changed to allow users to purchase virtual flowers in six different colours and at several grades of price. The several dozen of graphical virtual flowers can be viewed in relation to kinds of flower, flower colour, type of event, price, and the language of flowers which this service newly redefined for young people (Figure 3).



Figure 3. Interface to purchase virtual flowers (version 1.1)

For the virtual bouquet, we put the virtual flowers which the users purchased in the appearance of bouquet, with the messages to the guest displayed interactively by placing the mouse on each virtual flower (Figure 4). With this function, each user can see how the virtual flowers they purchase will be reflected in the bouquet.

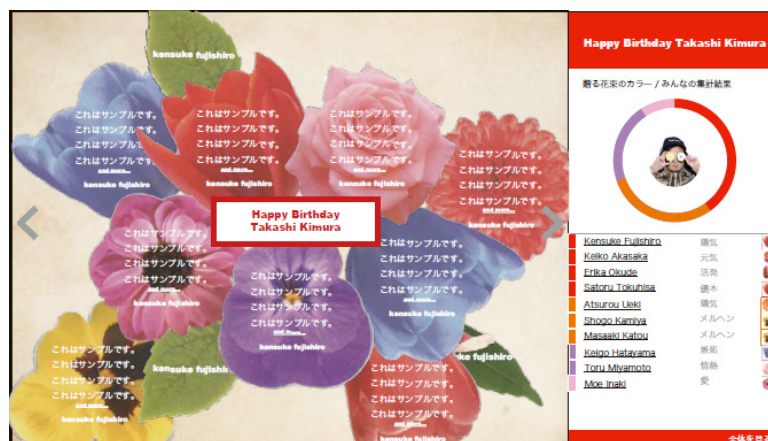


Figure 4. Image of a virtual bouquet (version 1.1)

The colour of the bouquet sent to the guest is determined by the total colour ratio of the virtual flowers which the friends purchased. However, in this design the collaborating partner still imposes the restriction that the customer cannot choose and purchase specific flowers. The virtual flowers are only flowers for the virtual bouquet and do not reflect the actual flowers sent to the guest.

3.2.4 Research: second phase

After developing the modified design, the authors conducted a second study using the paper prototype. Six female graduate students aged 24-34 years old were interviewed in April, 2012.

In terms of purchasing flowers, the users enjoyed the process of choosing them in relation to the language of flowers. However, they found the rule governing the colour combination of bouquet was very complicated so they ignored it. Also, they found it strange that they could not send the flowers which they bought as virtual flowers in the actual bouquet; indeed, they felt particularly strongly about the lack of connection between the virtual bouquet and the actual bouquet sent to the guest, their point being that the users came to the service not to send messages but to purchase flowers.

3.2.5 Service design: third phase

Based on the results of the aforementioned study, the authors modified the design, especially in relation to purchasing flowers, and the relationship between the virtual bouquet and the actual bouquet sent to the guest. The authors adopted the approach that friends could purchase a “message bouquet” which is a mini-bouquet with a different story

(Figure 5). Considering the restriction that the customers cannot buy specific flowers, the service adopted this means of purchasing original mini-bouquets with fascinating stories and a beautiful appearance in order to increase the satisfaction of the friends.



Figure 5. Image of a message bouquet (version 1.0)

In relation to the virtual bouquet, we opted to display the message bouquets which the users purchase within a circle. By placing the mouse on each message bouquet, the messages which the customers have written appear interactively. The organizers can confirm what kind of bouquet is being made during the event and the friends can check that the message bouquets they purchase are reflected in the actual bouquet. This approach aimed to increase the satisfaction of both the organizers and the friends.

Also, the virtual bouquet constructed of the message bouquets comprises an order sheet for the flower shops to use when they make the actual bouquet. With this system, the service can offer a bouquet with high-level customer satisfaction even if the skills of each flower shop are variable. In fact, the flower shops are one of the stakeholders in this service. Complying with the order sheet showing the exact appearance of the original bouquet can increase satisfaction with the supplier.



Figure 6. Virtual bouquet (version 1.2)

3.2.6 Research: third phase

Having developed the modified specification, the authors reflected the changes in the main images and updated the paper prototypes. Using these, the authors conducted a third phase of research with six graduate students in May, 2012. All of the respondents were female and experienced the process to start an event as an organizer. For this research we prepared three options (A, B, C) for the process of purchasing flowers and studied which was the most satisfying. We assumed that option B was the optimal service, positioning options A and C as competitive services. The options were as follows:

- The users decide on the flowers to be purchased based on the language of flowers at a rate of 500 yen per flower, purchased by selecting the quantity.
- The users decide on message bouquets with different stories at a rate of 500 yen per bouquet, purchased by selecting the quantity.
- The users decide on the colour of flowers they want to send and purchase them by selecting the quantity.

Of the respondents, four out of six answered that the best option was B. Their reasons were as follows:

“It was easy to choose by coordinating the image with that of the guest.”

“It was close to the message I wanted to send.”

“I could not imagine which colour was appropriate for the guest, so I chose the message which I wanted to send”.

Two of the six respondents considered the harmony of the colours in the actual bouquet:

“If each user in a group chooses a message bouquet according to his or her preference, I fear that the final colours will not be harmonious.”

“If each member in a group chooses a preferred message bouquet, the colours will be separate and chaotic. I am anxious about whether the bouquet will be sent without any adjustment.”

Finally, five of the six responded that the worst option was C.

3.2.7 Service design: fourth phase

Based on the above study, the authors further modified the design. In particular, this step updated the process of purchasing message bouquets.

We adopted the concept of the “themed bouquet” which is a superior form of the message bouquet (Figure 7). The themed bouquet is a group of message bouquets selected according to seven themes based on the characteristics of the guests. Each themed bouquet adopts a pattern of colour balance using three colours of which the actual bouquet will be composed. This avoids sending bouquets with unbalanced colour combinations regardless of which bouquet is selected by the users. An organizer selects a themed bouquet based on the characteristics of a guest when he or she starts an event; the friends who will participate in the event do not have to be conscious of the existence of the themed bouquet, select and purchasing their preferred message bouquet.

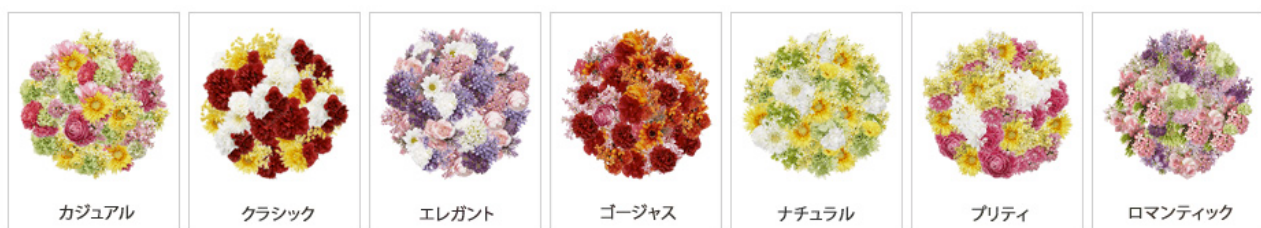


Figure7. Images of seven themed bouquets: casual, classic, elegant, gorgeous, natural, pretty and romantic

The themed bouquet aims to increase the satisfaction of the organizer, the friends and the guest: the organizers will be satisfied by assuring the harmony of the colours in the actual bouquet; the friends will be satisfied by selecting their own message bouquets; the guests will be satisfied by receiving the actual bouquet with harmonious colour combinations.

3.3 Final hypotheses

The authors developed a service concept, “A Multi-Stakeholder Satisfaction Service” for a group-based social gift service based on the results of marketing research and a review of existing services in order to specify an appropriate service model for online flower gift giving with the purpose of increasing flower consumption among younger generations.

To define a precise approach, the authors undertook iterative development of service designs, evaluating them through research and undertaking subsequent modifications. The specific products adopted in this research to satisfy organizers, friends and guests and the advantages derived from them are hypothesized as follows:

- Themed bouquet: organizers will be satisfied by assuring the harmony of colour combinations in the actual bouquet. Also, the guests will be satisfied by being sent the actual bouquet with harmonious colours.
- Message bouquet: friends will be satisfied by selecting message bouquets, each with a different story according to the characteristics of the guests.
- Virtual bouquet: friends will be satisfied by confirming where and how the message bouquets they buy will be reflected in real time (Figure 8).

4. Service Model

This section describes the service model of the social group gift service, “Bouquet”, derived from the concept of a multi-stakeholder satisfactory service derived from Edvardsson and Olsson’s service model [2].



Figure 8. Virtual bouquet (version 2.0)

4.1 Customer outcome

The customers in this service are organizers who organize events, friends who participate in events and the guests who are celebrated through the events. This section introduces the outcomes for these customers from the viewpoint of tangible and intangible elements, and lasting and temporary effects.

The outcomes for the organizers and the friends include tangible and intangible elements. The tangible element comprises the original bouquet as a temporary outcome. The original bouquet is an actual bouquet made by flower shops based on a virtual bouquet. The intangible element is that the message bouquets bought – a temporary outcome – are set in real time in a virtual bouquet. Also, archive pages are prepared as a lasting outcome. The event pages are saved on the service and organizers and friends can interactively check the message bouquets which they bought and the messages which were written when they purchased the bouquets. Thus, both the archive pages and the virtual bouquets they contain are lasting outcomes (Figure 9). The guests also benefit from these outcomes, but there is an additional intangible outcome for them: as a lasting outcome, guests can write a comment to the participants on the archive pages and can upload a photograph.



Figure 9. An archive page

4.2 Customer process

This section describes the process for organizers, friends and guests in using this service.

4.2.1 Organizer

The process for the organizer is as follows:

1. An organizer accesses the service, either by logging in via a Facebook account or creating a new Bouquet ID.
2. The organizer clicks the button to start a new event.
3. In step 1, the organizer fills in the information about the guest and selects a bouquet from the seven themes on offer according to the characteristics of the guest.
4. In step 2, the organizer selects who is to receive the actual bouquet – the organizer or the guest.
5. In step 3, the organizer inserts information about the event and starts the event.
6. To ensure the success of the event, the organizer invites friends to participate via email and SNS.
7. After the event finishes, the system sends an email notifying whether the event has succeeded or not.
8. If the event succeeds and the organizer has opted to receive the bouquet himself/herself, the organizer accesses the service through the URL sent in the email and fills in the address to which it should be delivered.
9. The organizer receives the bouquet from a flower shop on the designated date and passes it on to the guest.

4.2.2 Friends

The process for friends is as follows:

1. A friend receives an invitation to participate in an event from an organizer via email or SNS.
2. The friend accesses the service through the URL given in the invitation and logs in via Facebook, or by creating a new Bouquet ID.
3. The friend selects a message bouquet from the purchase page.
4. The friend writes a message for the guest.
5. The friend decides the number of message bouquets which they wish to buy.
6. The friend makes the payment for the bouquets.
7. The friend receives an email which tells them that the payment has succeeded.
8. At the end of the event, the friend receives an email notifying them whether the event has succeeded or not.

4.2.3 Guest

The process for the guest is as follows:

1. When an event succeeds, the system sends an email to the guest.
2. The guest accesses the service through the URL provided in the email, logging in via Facebook or by creating a new Bouquet ID.
3. On the archive page, the guest can view the virtual bouquet and messages from the organizer and friends.
4. If the organizer selected the guest as the person to receive the actual bouquet, the guest fills in the address and the date for delivery.
5. The guest receives the bouquet at the place and on the date designated from a flower shop.
6. The guest uploads a comment and photograph on the archive page.

4.3 Service prerequisites

4.3.1 Service concept

The primary need of the organizers and guests is the harmonious colour combination of the actual bouquet which all of the members in a group generate. Thus, we designed themed bouquets as the core service to meet this need. The themed bouquet is a set of several message bouquets reflecting the guest's characteristics; there are seven different themes to choose from, each with a well-balanced colour combination comprising three colours.

The primary needs of the friends are the method of purchasing flowers, the language of flowers, the kinds of flowers, and the flower colours based on the characteristics of the guest. This service offers the message bouquet as the core service to meet the friends' needs (Figure 10). The message bouquet is a mini bouquet each of which has a different story represented by three colours. In addition, this service developed the virtual bouquet to meet the friends' need to confirm how the message bouquets purchased by each user will be reflected in the actual bouquet. The virtual bouquet is a bouquet-type message board composed of message bouquets bought by the friends in the same group.



Figure 10. A themed bouquet and related message bouquets

The secondary need of the organizers and guests is flexibility in delivery of the actual bouquet. In this service, when the events start the organizers have the option to choose whether they or the guest will receive the bouquet.

Finally, the secondary need of the friends is micropayment by group. For this service, the minimum cost of a message bouquet is 500 yen. If the event collects more than eight items and 4000 yen, the event is successful and the bouquet will be sent to the guest.

4.3.2 Service system

The staffing of this service comprises front-end and back-end application administrators, and an administrator of the order management system of the sponsor (i879 Co., Ltd). The customers are the organizers, the friends and the guests.

There are several aspects related to physical and technical environment of this service. The customers need a PC or smart phone to access the service. Also, the service provider needs application servers and order management servers. The 4000 flower shops within the sponsor company's network in Japan need PCs to receive the order sheets. The service established a customer support centre using landlines and email for organization and control. In addition, the service offers a help page and FAQs for each user of the service site.

4.3.3 Service process

The service processes from the perspectives of the different customers have been described above (see 4.2). Should an event prove successful, the service sends the order information to the order management system and the system automatically selects the closest flower shop to the address where the bouquet will be sent. The order management system then sends graphical data and order information including the address to the flower shop which then delivers the bouquet to the designated place on the date requested.

5. Evaluation

The authors conducted a user survey to verify the effectiveness of three approaches in terms of the organizers', friends' and guests' satisfaction with the service. The URL of the questionnaire was sent to the users in those groups whose events were successful at random using the log data. Eight responses were received. Table 1 shows the questions asked.

5.1 Organizer

One organizer (male, in employment, 30–39) responded to the questionnaire. He was satisfied with the actual bouquet (Q5), but had negative feelings about the way it was wrapped by the flower shop:

"I am satisfied because the image of the virtual bouquet is very similar to the actual bouquet. But, wrapping was not so good. I found that the wrapping was more outstanding than the flowers themselves when I passed the bouquet to the guest. It would be better to design not only the bouquet but also its wrapping."

He answered that he was "somewhat satisfied" with the service (Q8) and "would use if given the chance" concerning continued use (Q10). However, he was anxious about the range of visibility when he posted the message on Facebook to invite his friends to participate:

"I posted the message on my timeline in Facebook and made the invitation letter visible to unspecified users. However, I was anxious about whether this event was really secret from the guest. I want the function to check whether the range of visibility is definitely concealed or not."

Table 1. Questionnaires for the bouquet users

Q1. Sex	a. Male b. Female
Q2. Occupation	a. Student b. In employment
Q3. Age	a. 10–19 b. 20–29 c. 30–39 d. 40–49 e. 50–59 f. 60–64 g. 65 and over
Q4. What kind of user did you participate in the event as?	a. Organizer b. Friend c. Guest
Q5. (To those who responded ‘organizer’ or ‘guest’ to Q4) Please give your positive and negative opinions about the actual bouquet.	
Q6. (To those who responded ‘friend’ to Q4) Please give your positive and negative opinions about the message bouquets.	
Q7. (To those who responded ‘friend’ to Q4) Please give your positive and negative opinions about the virtual bouquet.	
Q8. Were you satisfied with this service?	a. Very satisfied b. Somewhat satisfied c. Somewhat dissatisfied d. Very dissatisfied
Q9. Please give the reasons for your answer to Q8, referring to specific functions or experience of this service.	
Q10. Would you want to use this service again?	a. Would love to use again b. Would use if given the chance c. Not especially d. Would never use again
Q11. (To those who chose options a and b on Q10) What kind of user would you participate as? (Multiple answers allowed)	a. Organizer b. Friend c. Guest
Q12. If you have any other comment, please answer here.	

5.2 Friends

Six friends responded to the questionnaire. A woman (in employment, 20–29) was satisfied with the process of selecting the message bouquet: this shows that the authors obtained the expected result. A woman (in employment, 40–49) remarked that she cared about the final image of the bouquet although she was not an organizer but a friend. Specific comments received were as follows:

“It was a little troublesome to choose plural message bouquets and write messages. For example, I may want to select several different bouquets when I am choosing for my family or I may want to pay more than the others.” (female, in employment, 40–49)

“It was fun to choose the message bouquet, but I was anxious about the whole balance of the bouquet if other users chose the same bouquet as I did. It is better that that flower shop finally adjusts the colour balance.” (female, in employment, 40–49)

“The system was excellent so I was strongly motivated to send flowers.” (male, in employment, 40–49)

“Although flowers deteriorate quickly, messages last a long time. It’s a nice experience.” (male, in employment, 40–49)

The six friends also commented on their impressions of the virtual bouquet (Q7). A woman (in employment, 40–49) thought the interactive process of making the bouquet was fun. This is the expected result. Other users commented:

“I was glad to receive flowers instead of a paper-based message board. It was a new experience as a participant to receive a photograph from the organizer showing that the guest happy.” (female, in employment, 20–29)

“I remember that the process of the bouquet being made gradually was very enjoyable. I cannot specify the negative points. However, I was wondering how the virtual bouquet would be linked to the actual bouquet.” (female, in employment, 40–49)

Concerning satisfaction with the service (Q8), four of the six friends answered “very satisfied” and two answered “somewhat satisfied”. Therefore, all six friends gave positive responses. When asked about continued use of the service (Q10), three of the six answered “would love to use again”, and three answered “would use if given the chance”. Therefore all six friends also gave positive responses to this question. Moreover, they answered that next time they would use this service as the organizer (Q11). This result shows that they were encouraged to use the service continuously.

5.3 Guest

Finally, one guest (female, student, 20–29) completed the questionnaire. In terms of her impression of the actual bouquet (Q4), she was satisfied with well-balanced colours of the bouquet, but not with the service provided by the flower shop:

“The appearance and colour are good. However, the stems of the flowers are too long. It is a little troublesome to cut them.”

Also, she answered that she was “somewhat satisfied” with the service and that she “would love to use again”. As the following comment about the service indicated (Q9), she was intrigued by the messages which the message bouquets represented:

“I noticed how my friends see me through the message bouquet and the message. Four friends selected “chewing baby”, which is an interesting result for me. I am wondering whether they selected them based on name or design.”

6. Conclusion

This research proposed a service concept, “A Multi-Stakeholder Satisfaction Service”, for a group-based social gift service using marketing research methods and an iterative design in order to specify an appropriate service model for online flower gift service with the purpose of increasing flower consumption among the younger generations. As the results of the user survey show, the authors found that the organizer, friends and guest were satisfied with this service. Thus, the three approaches taken to satisfy the three different stakeholders, the themed bouquet, the message bouquets and the virtual bouquet, were effective. On the other hand, this concept might be criticized on the basis that it is natural to extract the stakeholders in a service and to satisfy all of them, but that such an approach requires considerable expenditure. Such criticism can be refuted: although the authors repeated plural cycles of development and evaluation based on precise user feedback, they were at the stage of paper prototyping. The total development cost was average compared with other cases of web service development. It is possible to overcome the problems experienced by existing services, both providing a low cost service and satisfying the users by designing a new meaningful and experiential way to send flowers. As a future development, the authors will study whether this service concept, which was applied using a social gift service, will be effective in other fields.

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