Abstract

Recently, many countries and regions are trying to attract international conferences. Conference participants are generally many. Big parties or other activities which cannot be offered to individual travellers can be held. In addition, conference participants can use money and experience real service and atmosphere directly. Good reputation of them can attract next prospective visitors. This kind of effects stimulates people to hold a conference even without sufficient resources. International conferences naturally require various resources. The most important and rigid resource is time. This article’s author and colleagues hosted an international conference in February 2014 with short arrangement time. Irrespective of arrangement duration, hosts must succeed in holding conference. This article shows the process from collecting papers to starting conference in a system dynamics model style. Each conference in future can be different in detailed condition; however, the model presented in this article can show points of which hosts should be aware. In particular, the meaning of time limit is shown by simulations. Conference hosts can be tempted to extend deadlines in order to gather more participants; however, it defeats its own purpose.

1. Introduction

In either developed or developing countries, national and local governments are encouraging universities and companies to attract international conferences. For example, the national government of Japan founded Japan National Tourism Organization (JNTO) to help domestic organisations to host international conference, conventions, and incentive
tours. They published guidebook for prospective host organisations how to attract and operate international conferences (Japan National Tourism Organization, 2012). They also provide operation supports, in particular making technical documents and pamphlets for bidding.

There exists much research on effects to attract foreign. For example, Mathieson and Wall (1982) and Pearce (1989) explain thoroughly effect of tourism not only about economic but also about non-economic factors. In particular, Copeland (1991) shows mathematical formalization of economic effect brought by tourism. Their pieces of research agree that tourism is an important source of economic growth; tourism can bring about not only increase of domestic consumption but also of export expansion. These theories are basis of the governmental assist in holding international conferences.

Hosting international conferences needs preparation and arrangements, the same as hosting domestic conferences; however, tasks are more complicated than domestic ones. Not only communication troubles caused by language barrier but also problem about payment methods can easily happen. The preparation includes many things: organizing operation teams, collecting many attendees, fund raising, reservation of conference rooms, preparation of proceedings, compiling local information, etc.

We set the central aim that collecting paper and attendees as many as possible. Of course, presentation and paper quality is important. However, it was the 50th celebration year of Japan SD; Professor Toshiro Shimada learned SD in MIT, then he brought SD to Japan in 1963. Then, local people hoped a festive event. Besides, such a large event was expected good effects: to provide a debut stage to relatively new Asian SD users, to make a chance to for Asian people to know the world class SD professional’s works, to make a cultural and research theme exchange opportunity.

Moreover, “good season” is often limited so that arranging conference venue is in competitive situation. Thus, hosting international conferences needs more attention and longer preparation time.

However, some international conferences need to cope with the fact to arrange in a short time. The reasons can be one or all of budget limits, political pressures, and personal willingness. Irrespective of the reason, people in charge of operations (the core team) must arrange everything on time once a conference starts to call for papers.

The author and colleagues hosted a conference which allowed short
arrangement and preparation time (System Dynamics Society, 2013). The original event was proposed in December 2013. However, it was really busy season in Japan due to making tax relation document in all industries. Then local people change the mind to hold it in “2013 academic year” which ends in March 2014; it means three months of grace. In addition, February is busy season in Korea, Australia, and New Zealand. Then naturally, it should be held in March, but we found no room appropriate for conference meeting in our reach. As a result, we decided to hold it on 22nd to 24th February 2014.

Based on this experience, this paper shows the process of conference preparation and operation in short time with system dynamics stock flow diagram style and the importance of time which the core team can use in reality.

2. Model

2.1 Qualitative Analysis

First, organization committee members need to understand circumstances. The author confirmed mental models which reflect recognitions of given circumstances and attitude of local people with causal loop diagrams.

As described in the previous section, we hoped to gather many people. To do it, one of important factor is schedule. Our mental model is shown in figure 1.

![Figure 1. motivation to gather many attendees](image)

We hoped to make a debut stage for relatively new SD users. Stimulating
new people to report their current research would raise their SD use motivation and works’ quality. Then, we set conference fee is relatively low, about half of international SD or related area conferences. It must lower the barrier to join the conference. This idea is reflected in figure 2.

Figure 2. Lowering barrier to join the conference

The conference should be a good opportunity to learn directly from top class SD users. This is only my personal view, but SD education and use are not very active in Japan. Regular SD course in universities are rare (one of them is conducted by the author). Textbooks and other teaching material are also insufficient. The education and use of SD have almost discontinued after 1960s. Nevertheless, recently eager SD learners are appearing. Showing “real SD” to them is significantly meaningful. This thought is shown in figure 3.

Figure 3. Learning opportunity

Merits to join the conference should be bidirectional: not only new SD
users benefited but also existing SD researchers should have a merit to bring themselves to the event. The author believed that there must be still many topics which have never been dealt with by SD people. Developing countries seems not to have rich SD education environment, and developing countries do not need experience troubles with which developed countries already coped. Developing countries would overcome such problems with experienced SD researchers’ help. Therefore, the event should expose various application of SD to existing researchers. It would stimulate new research and application of SD, then existing researchers would benefit. This though is shown in figure 4.

![Diagram of Various applications of SD]

Figure 4. Various applications of SD

All of causal loop diagrams expressing mental models are simply reinforcing loops. This means that we always needed to pay attention to things going well in right direction continuously. Once it goes wrong, the event would fail with big damage. Fortunately, the conference succeeded with over 40 presentations and workshops and about 100 people.

2.2 Quantitative Analysis

Holding a conference looks to start by publishing a call for papers. However, before it, a core team, which consists of active members of organization committee, program committee, and society’s headquarters, needs to fix a schedule. Main dates are presentation submission deadline, acceptance notification deadline, registration deadline, and conference days. Each term between deadlines can be seen a small project. Project management models exist in system dynamics history. The typical model structures are shown in Lyneis et al. (2001) and Lyneis and Ford (2007).
The model in this paper has the similar structure in each small project. However, this model does not basically consider about rework. This is different from existing project management models.

In past many conferences, the conference days are decided at first because of conference facilities arrangements or political reasons. Then, other deadlines are set.

The registration deadline is often the same as the opening day of conference because some societies allow registration without payment. In this case, subscribers can wait for the time when conditions are all set. On the other hand, this style make conference hosts worries because they cannot count on such submissions as real participants. Therefore, societies which can collect sufficient participant require registration with payment in advance. The model in this paper is made on this assumption that registration requires simultaneous payment. In this case, people who have already registered and paid would be counted on as real participants. Therefore, the model ends conference operating process at the registration closing.

The presentation submission deadline can be changed after starting submission because a conference host person needs many participants. Unless sufficient participants gathered, the conference host would be suffered in finance or, at least, “lose face.” Therefore, extension of the submission deadline is not very rare.

The model in this paper contains variable “submission time” as duration to receive paper submission. Prospective submission is given in this model, and this number is expressed as a pulse input for submission process. Based on the authors’ experiences, this pulse is smoothed in third order. When submission deadline comes, remainder of prospective submissions is shut out. After submission deadline, reviewing process starts. The speed depends on the number of reviewers and reviewer per paper which indicate the number a reviewer can make reviewing report per day. This story is reflected on the model structure in figure 5 based on the though shown in Takahashi (2008).
However, this easy submission deadline extension definitely causes the delay of acceptance notification. In any case, reviewers need time to do their tasks. Besides, the conference date is fixed and unchangeable. This means that the submission deadline causes to decrease registration time. The core team is always struggling against remainder time. This is modelled as figure 6.

Registration time duration has significant meaning. When one needs an official invitation letter or visa related technical documents, it takes several days. These documents related tasks consume long time because they use
non-electronic mail and local embassies needs at least five days (Japan’s case). Moreover, are important to avoid any mistakes because failure of visa application causes to make one unable for long days to the country where the conference is held. In the case of Japan, once one is rejected to issue visa, one cannot visit Japan for six months even for other travel reasons (Ministry of Foreign Affairs of Japan, 2013). Thus, mistakes about documents cause subscribers’ great inconveniences: conference core team need sufficient time to complete these tasks. Visa related tasks are modelled as figure 7.

![Figure 7. Visa and technical documents request and process time](image)

As the model reflects the fact that there are people who cannot participate the conference without visa and other technical documents, even accepted paper authors cancels when the registration deadline is to close (figure 8).

In the base simulation, an author number per submission is two. One of each rejected paper’s authors is supposed to join the conference.
Figure 8. Registration process
Stock flow diagrams are separately shown in figures above. However, the variable names with brackets are copies of variables which are shown in another figure; therefore, this model is mutually connected and can be said that the model is one which contains connected small projects.

3. Simulation

All parameters are based on the task hosting the Asia Pacific System Dynamics Conference (Japan Chapter of System Dynamics Society, no date). Parameters are set based on the record of the authors.

The core team started arrangement six months before the conference. Simulation starts on the 22 September, and unit time is a day. The registration deadline is virtually the opening day of the conference.

The base simulation result is in figure 9.

![Simulation result using parameters based on the record](image)

The total registration (blue line) reaches over one hundred. Authors start to cancel their submission when visa or other documents has not arrived seven days before the conference opening.

As mentioned above, conference hosts are sometimes tempted to extend
submission deadlines. The base simulation (figure 9) uses 120 days as submission time. The figure 10 is the result of submission time extension to 145 days.

Figure 10. Extended deadline effect

The reviewing process starts later than original simulation and it causes to decrease registration time duration. Then, authors who need visa or other documents cancellation is more than base case so that total registration number (blue line) reaches under one hundred.

Submission time extension would seem to increase submission number; this is a root of misunderstanding. Potential subscribers cannot be increased by extension of submission time. Rather, keeping submission deadline and making reviewing and making document processes quicker are effective. Figure 11 shows the result of simulation that the number of reviewers and document related secretaries are doubled. The final registration number is more than original base simulation.
Of course, increasing potential or prospective submissions bring about radical change. Indeed, the registered people double when the prospective submission doubles in this model. However, geographical, financial, and political reasons often make it impossible. Conference hosts need to understand that easy extension of deadlines simply decrease participants, and it results in financial or other difficulties.

4. Conclusion

Hosting an international conference is a “big project” which must succeed since many people’s time and efforts spends on it. However, some of such conferences have been held without sufficient time resource. Indicators of successfulness are various. However, the number of participants would be one of the most important indicators not only because of budget but also because conferences are communication opportunities. Therefore, not only for frequent participants but also for others should it be open. Therefore, removing bottlenecks to keep one from joining it is significantly important.

This article shows the arrangement time duration’s importance. Submission deadline has very limited effect to increase participant because it cannot radically increase prospective submissions. Future prospective
hosts of conferences should be aware of the significant effect of scheduling and time management.

References


All WWW pages were retrieved on 5th March 2014.