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**Do self-sanctioning and outsider intervention instill trust in the
information disclosure process?**

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Abstract

This study explored two questions: 1) what kind of method for instilling trust is evaluated to be important by the general public and 2) who is considered as a legitimate third party, when administrators and organizations go through an information disclosure process. We hypothesized that voluntary declaration of self-sanctions, before an issue becomes public, would be important in instilling trust as well as the intervention of outsiders. Further, we explored which groups were evaluated as acceptable third parties. In a social survey conducted in the Kanto district of Japan, 621 responses (24.8% response rate) were obtained using a two stage systematic stratified random sampling method and mail-out procedure. Results showed that declaration of self-sanctions was seen as most important in instilling trust, but with involvement of an outsider also seen as important. An analysis of possible trusted third parties showed that academics and citizens interested in the issue were considered as most appropriate 'outsiders', while politicians, governor/mayor and administrative officials were considered less appropriate. Finally, cluster analysis showed that mass media was included within the same cluster as the political group. (183 words)

1. Introduction

Studies suggest that trust is an important component in the information disclosure process. Many previous studies have pointed out that lack of trust reduces the chance of achieving consensus (e. g. Cvetkovich and Lofstedt, 1999; Fishhoff, 1995; Flynn et al., 1992; Slovic, 1993). Some studies have also suggested that the public distrusts the “arrogant specialist” (Leiss, 1996; Fischhoff, 1995). The importance of trust has led to a number of methods being proposed to develop trust (e.g. Barber, 1983; Covello, 1992; Cvetkovich and Lofstedt, 1999; Peter, et al., 1997; Siegrist, et al., 2003; Slovic, 1993; Yamagishi, 1998). Some of these studies identify the role of risk communication as important in developing a trusting relationship between such diverse groups as citizens, companies, and administrative officials. However, it is still unclear as to what are the most effective means to accomplish this. For example, when developing public facilities such as dams and sluices, or electric power plants, it would appear that administrative officials and construction/ electric companies would be better off to disclose information about the plan before beginning construction. Information disclosure is needed not only in the operating of such facilities, but also in the planning for their development. However, in the event that information disclosure alone is insufficient, methods for its distribution should be evaluated. For example, does outsider

involvement help to instill trust in the process? The aim of this study was to investigate how different methods for instilling trust are evaluated by the public when administrative officials and companies disclose information about important public projects.

1.1. Factors for instilling trust and information disclosure

Nakayachi and Ohnuma (2003) have shown that simple information disclosure does not, in itself, necessarily increase trust. Trust only occurs when information disclosure functions to provide assurance, particularly in situations in which defection can occur immediately (Yamagishi, 1998; Yamagishi and Yamagishi, 1994). In such situations, we need to consider what kind of information disclosure can provide assurance. To this end, we consider two aspects of the information disclosure process: voluntary declaration of sanctions and involvement of outsiders.

1.1.1. Declaration of self-sanctioning behaviors

Sanctions can provide assurance in that they often deter defection (Yamagishi, 1998; Yamagishi and Yamagishi, 1994). However, sanctions are sometimes the consequence of losing trust due to negative events. Once trust is lost, it can be difficult to reestablish,

even with the implementation of austere sanctioning. Nevertheless, Nakayachi and Watabe (2005) suggested that implementing sanctions could be a method of enhancing trust if it is implemented before trust is lost. In other words, if an organization itself voluntarily declares sanctions before an issue becomes public, the organization is seen favorably. In the context of information disclosure, when the occurrence of negative events is highly unpredictable, there is no reason to implement sanctions since there is no one to blame. However, we propose that it would provide assurance to announce beforehand that the organization will impose sanctions on itself if an incident is exposed in the process of information disclosure, even when there is no fault on the organization itself. This we call 'declaration of self-sanctions' or 'voluntary declared sanctions.' We hypothesized that declarations of self-sanctioning behaviors, not just those enforced by the law, are important for instilling trust, given that it can provide assurance to the public (Nakayachi and Watabe, 2005). For example, if a company constructs a plant, and if it sets a quality standard higher than that dictated by law and declares sanctions if it fails to achieve its goals through some form of punishment (e.g. reducing the salary) of the person responsible, then the company is more likely to generate a degree of public trust.

1.1.2. Outsider involvement

The involvement of outsiders in the process of information disclosure could also provide assurance. According to Yamagishi (1998), surveillance is a typical means of increasing assurance, though it carries a cost. Transparency functions to provide assurance, and information disclosure could be one method for increasing transparency (Nakayachi and Ohnuma, 2003; Nakayachi and Watabe, 2005). Provided that the cost paid to improve transparency does not involve much obvious benefit to the organization, information disclosure might be regarded as a sign of guiltlessness, thereby enhancing trust. Consequently, organizations and administrative officials should be trusted more when someone outside the organization is involved in the disclosure process since it is then seen as more transparent.

1.2. Who are acceptable third parties for the information disclosure process?

Given that outsider involvement is important to the process of information disclosure, who are good candidates for the role? The organization would not be trusted unconditionally regardless of the outsider involved. This is an important issue since it is well known that evaluated legitimacy has a major influence on the perceived fairness of a procedure and decision satisfaction (Earley and Lind, 1987; Friedland, et al., 1973;

Ohnuma et al., 2005; Rasinsky, 1987; Thibaut, et al., 1974; Tyler, 1990; Tyler and Lind, 1992). Given that specialists and officials are often mistrusted (Cvetkovich and Lofstedt, 1999; Fishhoff, 1955; Flynn et al., 1992; Slovic, 1993), it is likely that they would not be evaluated as having legitimacy, whereas other parties such as Non Profit Organizations and Non Governmental Organizations (NPO/NGOs), as well as interested citizens, might be evaluated as having legitimacy.

At this point it is important to differentiate between three types of potentially related groups – ‘NPO/NGOs’, ‘inhabitants’, and ‘citizens’ (Ohnuma and Nakayachi, 2003). NPO/NGOs are defined as volunteers and/or applicants who are willing to be involved in the decision process. Inhabitants are defined as being directly involved in the issue as a result of living within the area concerned. For example, those who are living in the constituency of a siting candidate are regarded as inhabitants. Citizens are defined as neither inhabitants nor applicants, but as indirect interested parties. Citizens are distinguished from directly interested parties in that there is no direct gain from their involvement in the issue.

This research attempted to explore outsider involvement and determine which third parties have legitimacy in the role.

1.3. Study aims

In summary, this study aims to: a) identify methods of instilling trust b) compare which method is evaluated as being important c) identify who is considered as a legitimate third party when administrators and organizations go through an information disclosure process and d) categorize possible candidate groups for the third party role.

2. Method

2.1. Procedure

The survey area was the Kanto district of Japan, which includes Tokyo. The population is about forty million. Two thousand five hundred individuals were sampled using a two stage systematic stratified random sampling method and a mail-out survey. In the first stage, city size was stratified according to the population of each municipality: a large city was defined as having a population over 200,000, a mid size city was defined as having a population between 50,000 and 200,000, and a small size city was defined as having a population less than 50,000. Nine cities were randomly sampled from the large city group, eight cities from the mid size city group, and eight cities from the small city group. In total, 25 cities were sampled. In the second stage, 100 individuals were randomly sampled from each city. The Resident Registration List in each municipality

was used as the sampling list.

The survey was conducted in November 2003. Six hundred and twenty one responses were obtained, providing a response rate of 24.8%.

2.2. Measures

The survey was designed to measure people's attitudes towards public facilities and the methods companies and administrators use to communicate risk to citizens. The survey consisted of items measuring a variety of topics, including anxiety about risky incidents, evaluations of responsibility and attributions for environmental pollution, and so on, but only those items used in the current analysis are discussed here.

There were two groups of questions. The first group consisted of items measuring attitudes towards different methods for instilling trust in information disclosure, including the involvement of citizens, experts, and NPOs; commitment of persons outside of the process; regular contact between relevant groups; and declaration of self-sanctions (see Table 2). For each item, respondents indicated the level of trust they would feel if administrators and organizations provided information. These measures were answered on a single 5-point scale ranging from "a lot of trust" to "no trust at all".

The second group of questions asked respondents to evaluate the acceptability of

possible third parties. Respondents were asked to choose any number of acceptable third parties from the following list: politicians, governor/mayor, administrative officials, mass media, NPO/NGO, inhabitants of the area, citizens interested in the issue but not living in the area, and academics.

3. Results

3.1. Demographics

There were a total of 611 respondents (307 female and 304 male). The age distribution was as follows: less than 30 years, 5.7% ($n=35$); 30-39 years, 12.0% ($n=73$); 40-49 years, 16.4% ($n=100$); 50-59 years, 24.4% ($n=149$); 60-69 years, 27.7% ($n=169$); and 70 years and over, 13.8% ($n=84$). There were no significant differences in age distribution by city size (Table 1). However, because many of the respondents failed to indicate the name of the municipality where they lived, any conclusions made regarding differences in city size must be made with caution. Averaging across city size, these results are roughly similar to the actual population age distribution of Kanto district, although the rate of individuals under the age of 30 is low.

3.2. Opinions on methods of instilling trust

First, we conducted a factor analysis to classify the obtained responses into different methods for instilling trust (principal components extraction with varimax rotation). Five factors were obtained (eigenvalues > 1): regular contact (factor 1), commitment of outsider (factor 2), involvement of citizens in information disclosure (factor 3), declaration of self-sanctions (factor 4), and involvement of experts and NPO in information disclosure (factor 5; see Table 2). Two items, “identify a person who is responsible and has authority, and publicize a check system of information provision about the organization and national agencies” and “establish a permanent liaison window to reply to opinions about the information”, loaded on both factors 1 and 4. However, given that the loading was relatively higher on factor 1, these items were included with other items indicating regular contact.

Eigenvalues and the proportion of the total variance explained by each factor after rotation ranged from 2.93 (0.20) for factor 1 to 1.37 (0.09) for factor 5. However, this does not imply that regular contact is more important than the involvement of experts in the information disclosure process. The focus of this study was to evaluate the respondents attitudes towards methods for instilling trust, which could be an indicator of its effectiveness. Hence, mean scores were calculated for each of the obtained five factors. To confirm the reliability of the obtained scales, we calculated Cronbach’s

alpha coefficient for each scale and found acceptable reliability: regular contact $\alpha = 0.83$, commitment of outsider $\alpha = 0.80$, involvement of citizens in information disclosure $\alpha = 0.66$, self-declaration of sanctions $\alpha = 0.68$ and involvement of experts and NPO in information disclosure $\alpha = 0.53$. While the coefficient for factor 5 (expert and NPO involvement) was low, overall, scales were sufficiently reliable.

Mean scores for each scale are shown in figure 1. To confirm whether mean scores were significantly different from the mid-point or not, t-test analyses were conducted. Significant effects were obtained for all scales ($t=25.44$ for regular contact, $t=21.82$ for commitment of outsider, $t=14.22$ for involvement of citizens in information disclosure, $t=34.39$ for self-declaration of sanctions, and $t=20.46$ for involvement of experts and NPO in information disclosure; all $ps < .01$). These results suggested that all methods were considered useful in instilling trust. Next, a one-way ANOVA (5-levels of Method) was conducted to test whether methods differed in their ability to instill trust. There was a significant main effect for scale ($F= 101.13$, $p < .01$; see Table 3). Tukey's studentized range test ($\alpha = 0.05$) indicated that there were significant differences between self-declaration of sanctions and the other scales, and between involvement of citizens in information disclosure and the other scales (Error DF=2404, EMS=0.40, Critical Value of Studentized Range=3.86). These results suggest that self-declaration of

sanctions was considered to be the most effective method for instilling trust during information disclosure, and that involvement of citizens was the least effective. However, involvement of citizens in information disclosure was still seen as effective because the mean score was greater than the mid-point.

3.3. Evaluation of possible acceptable third parties

The second analysis concerned possible acceptable third parties. As shown in figure 2, academics and citizens interested in the issue were considered as the most appropriate third parties, followed by inhabitants of the area and NPO/NGOs. On the other hand, politicians, the governor/mayor, and administrative officials were considered less appropriate third parties. Mass media was also considered a less appropriate third party.

To examine the evaluated distance between possible third parties, a cluster analysis was conducted (squared Euclidean distance; Ward's minimum-variance method). Results from the cluster analysis showed three cluster groups (see figure 3). Academics, NPO/NGO, and inhabitants of the area were grouped together in the first cluster, which was called 'opinion leaders'. Citizens interested in the issue made up the second cluster: 'citizens'. Politicians, the governor/mayor, administrative officials, and mass media were grouped together in the third cluster: 'political groups'. It should be noted that

mass media were included within the same cluster as political groups. In contrast, citizens interested in the issue did not cluster with any other third parties, which imply that citizens might be regarded as an independent party.

Given that the pattern observed depends on the method used, the results of two additional clustering methods were compared to those of the Ward's minimum-variance method: results of the analyses using complete linkage (further neighbor maximum method) and single linkage (nearest neighbor minimum method) are shown in figures 4 and 5. Although the clustering of Academics, NPO/NGOs, citizens, and inhabitants was not necessarily consistent across methods, all three solutions clustered mass media together with politicians, the governor/mayor, and administrative officials.

4. Discussion and conclusion

4.1. Summary of the results

The results from this survey showed that 'self declaration of sanctions' was the best method to instill trust, followed by 'commitment of outsiders'. The analysis of possible acceptable third parties showed that academics, and citizens interested in the issue but not living within the area, were evaluated as acceptable third parties, whereas politicians, the governor/mayor and administrative officials were evaluated as relatively

less acceptable third parties. Cluster analyses using three types of extract methods showed that mass media was included within the same cluster as political groups.

4.2. The role of mass media

The results showed that mass media were not regarded as an appropriate third party and were included within the same cluster as political groups. One possible interpretation for this result is that mass media might be perceived as being responsible for sensationalizing an issue and not necessarily acting in an unbiased manner. Consequently, media sources were unable to instill trust in the information disclosure process. Similar results were obtained in another survey in which mass-communication and journalists were included in a less trusted group together with politicians and the local authorities (Center for Development of Power supply region, 1997). These results are curious given that the function of mass media is to report information in an unbiased manner, particularly in western countries. It may be that distrust of mass media is only observed in Japan. Whether or not this phenomenon is unique to Japan needs to be clarified in future research.

In contrast to mass media, citizens who are interested in the issue but not living within the area concerned were regarded as acceptable third parties, forming their own

independent cluster. These results suggest that the involvement of citizens in information disclosure might improve trust in the process, perhaps because transparency is more likely with unbiased third party involvement.

4.3. Limitations of this study

There are a couple of limitations with this study. First, in our questionnaire, we evaluated self-declaration of sanctions, but not sanctions imposed by outside forces. Information disclosure with the involvement of outsiders was evaluated, but not information disclosure without the involvement of outsiders. As a result, we are unable to compare self-declaration of sanctions with imposed sanctions, or information disclosure with and without the involvement of outsiders. It is important for future studies to resolve these issues.

Second, respondents were asked to respond to a hypothetical situation. It is important that we assess the validity of the results of this study with actual case studies.

Despite these limitations, the results of this study still provide us with important information about the roles of ‘self declaration of sanctions’ and ‘information disclosure with the involvement of outsiders,’ in developing trust in public domain situations.

4.4. Implications of this study

4.4.1. Function of self-declaration of sanctions

The results of this study showed that declaration of self-sanctioning was the best method of the ones we considered to instill trust in the information disclosure process. Nakayachi and Watabe (2005) demonstrated empirically that trust in a company increased only when self-declarations of sanctions were implemented before an interested party made a claim. Fujii (2004) suggested that “initiated apologies”, which imply self implemented sanctioning, increases trust. The results of our study are consistent with the findings of previous studies. These findings should encourage organizations to take the initiative in implementing a sanctioning system when needed. If an organization does not implement self-sanctions, once a problem becomes apparent, the organization is likely to lose trust completely. By taking the initiative to implement and publicize self-sanctioning, it is possible that the public will perceive the organization as trustworthy.

One counterargument may be that organizations will lose trust in the face of a negative event, regardless of whether or not they declared sanctions prior to the event becoming known. However, Fujii (2004) argued that “initiated apologies” would have

the function of not only enhancing trust during uneventful times, but also to alleviate loss of trust during crises. It might not be a coincidence that regular contact was also regarded as important in instilling trust in this study. We need to explore the relationship between regular contact and declarations of self-sanctioning in future research.

4.4.2. Function of involvement of outsiders in information disclosure

The results showed that citizens interested in an issue were regarded as an acceptable third party. This is also consistent with previous findings. For example, Ohnuma and Nakayachi (2003) and Ohnuma et al. (2004) provided empirical data demonstrating that interested citizens are considered as an acceptable third party, and that they are thought to have legitimacy as a part of the decision process. These findings should also encourage the involvement of citizens in the decision making process as a means for developing public trust. However, one possible drawback to the involvement of citizens may be the imposition to unwarranted obstacles or delays to the decision process. This might be the case in situations requiring full consensus. However, this is rarely the case in the information disclosure process, which emphasizes a variety of opinions. Thus, the involvement of citizens could be an effective means for organizations to instill trust.

Finally this is an important next step in investigating the relationship between trust and information disclosure.

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