Case Studies on the Household Recovery Assistance Operation Based on Customer Relationship Management in Recent Earthquake Disasters in Japan

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ABSTRACT :

It is crucial for efficient individual household recovery support operation to manage those customer relations since considerable part of troubles in individual recovery came from failures in each interactions caused by lack of common understanding on each recovery process between them. In this paper, we proposed a framework of "Recovery Chart System" which manage profile of each affected household from various aspects such as property damage, family structure, economic situation, health condition, plan of recovery, and history of consultation including what they asked and how staffs responded After Noto peninsula earthquake, Mar., 2007, Anamizu town adopted our system for its recovery support operation. We examined its effectiveness and problems in practical use by following how the system was installed, utilized and extended in the actual operation.

KEYWORDS: Individual Household Recovery, Customer Relationship Management, Noto Peninsula E.Q. 2007, Anamizu Town

1. CUSTOMER RELATIONSHIP MANAGEMENT IN INDIVIDUAL RECOVERY ASSISTANCE

Since individual household recovery was recognized as an inevitable issue by public sectors after Kobe earthquake 1995, public support program for household in Japan has expanded in variety and increased in complexity. Discussion on how the assistance should be provided to them, however, has been put aside whereas amount or contents of it have been disputed every time a disaster happens. To know how the assistance services were provided in real support operation and what kind of problems emerged in it, an ethnographical survey including observation of consultation office works, interviews to staffs engaged in the operation and analyzing documents used in operation was carried out on LTRA implemented by Ojiya City after Niigata-ken Chuetsu Earthquake, Oct. 2004 (Takashima et al. (2006[2]). As a result of the survey, the followings were clarified.

1) For most of affected households, support system in Japan is unfamiliar and complicated to understand its scheme and requirements to use it. Affected households must visit various sections in charge of particular assistance service to know the contents of each assistance and requirements to receive it to decide combination of supports they use.

2) The risk of communication failure between them was very high. Staff engaging consultation also did not record who accessed the office, what consulters said, inquired about and called for and how staffs responds to them in each consultation. So many consulters accessed the office so many times. It was impossible to remember the contents of each consultation for each household. Meantime, considerable number of households who came to the office did not take any note during consultation. Most of them just explained their situation, made inquiry and listened to consultant.

3) Such communication failure induced dissatisfaction of affected households, complains from them and additional unnecessary jobs for staffs to shoot those futile troubles. It is crucial for effective and efficient long term recovery assistance (LTRA) operation to manage those interactions in customer-oriented manner and to avoid the miscommunication to encourage recovery of individual household.

Takashima et al. (2005[1], 2006[2]) pointed out the importance of customer-oriented manner in disaster victim's certificate issuance operation and in design of information system supporting LTRA. There is, however, no empirical study on how to manage interaction between local government staff and individual households in their recovery process in terms of customer relation management.

2. RECOVERY CHART SYSTEM

Based on the result above mentioned, we proposed a concept of "Recovery Chart System" which manage profile of each affected household from various aspects such as property damage, family structure, economic situation, health condition, plan of recovery, and history of consultation including what they inquired and how staffs responded. As shown in Figure 1, interaction between consulter and consultant become inefficient without such system since ad hoc consultants have no information about the profile of consulters and the history of consultation with them. Such asymmetry and lack of information between them incur dissatisfaction of households and make following interactions tough. With Recovery Chart System, consulter and consultant can concentrate on what they want to talk on each meeting, consequently, encourage individual recovery process since all the information about profiles and consultation history on individual households is recorded on the system.

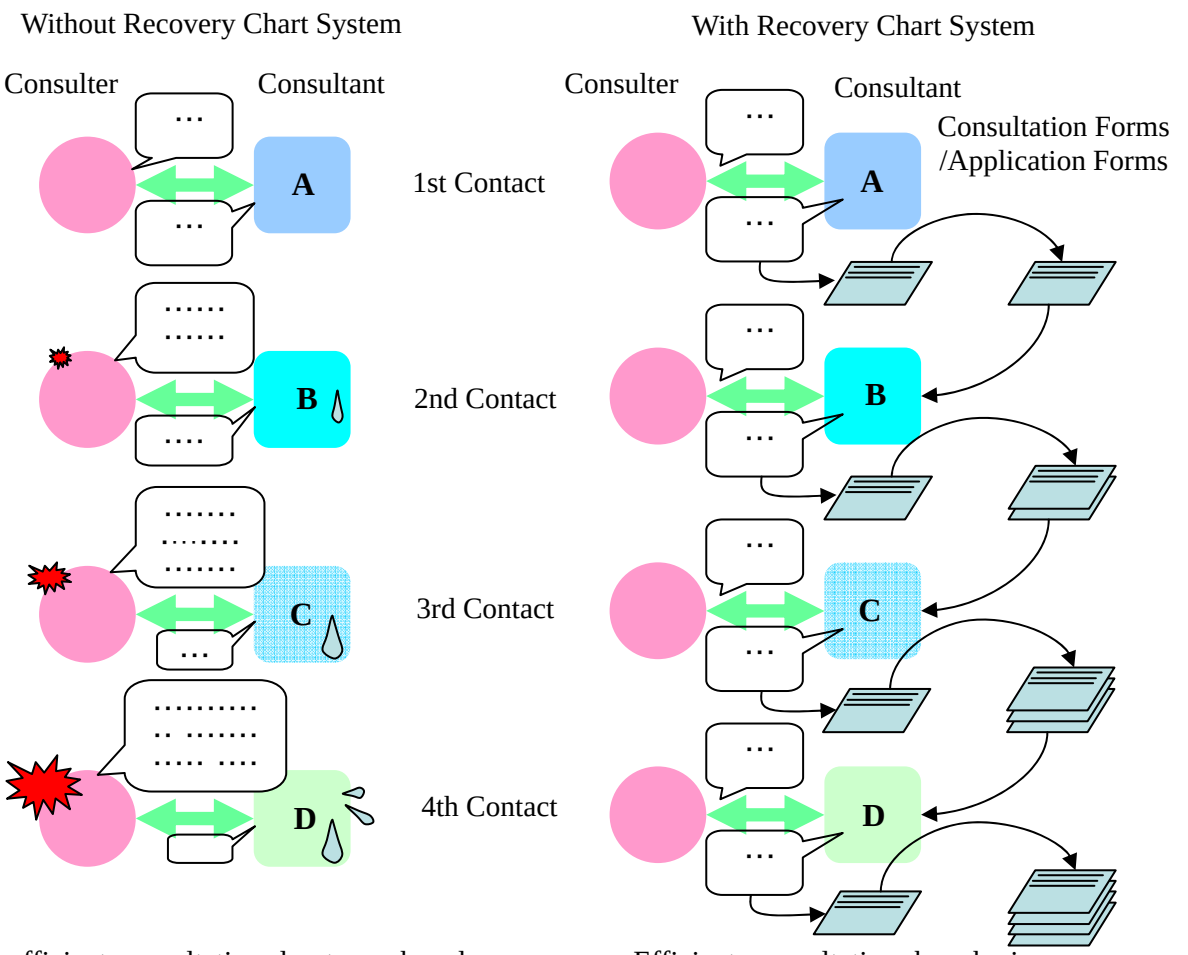

Figure 1 Comparison of consultation operation with/without "Recovery Chart Sytsem"

3. CONSULTATION OPERATION OF ANAMIZU TOWN IN NOTO PENINSULA EARTHQUAKE USING RECOVERY CHART SYSTEM

After Noto Peninsula Earthquake Mar. 2007, Anamizu Town decided to adopt paper-based "Recovery Chart" System on their LTRA operation. Structure of paper-based Recovery Chart is shown in Figure 2. When affected households eligible for assistance programs accessed consultation office(Figure 3), Recovery Chart binder was made. Contents of consultation were documented on given forms(Figure 4) by consultants (Figure 5). All the documents involved in the interaction such as those consultation forms, copies of submitted application forms and documents certifying profile of households were filed in each individual binder. Once Recovery Chart was made, it was displayed on a shelf behind the counter(Figure 6).

Next time the consulter accessed the office, staffs asked which household consulter came from, picked up the Recovery Chart from the shelf, then began consultation. They could engage consultation with consulter's profile and consultation history by referring his/her Recovery Chart in the session, even if the consultant was different from previous one. As shown in Table 1, various individual household assistance programs has been assigned to various division of Anamizu town office. Application to most of those programs by each household has been traced on Recovery Charts.

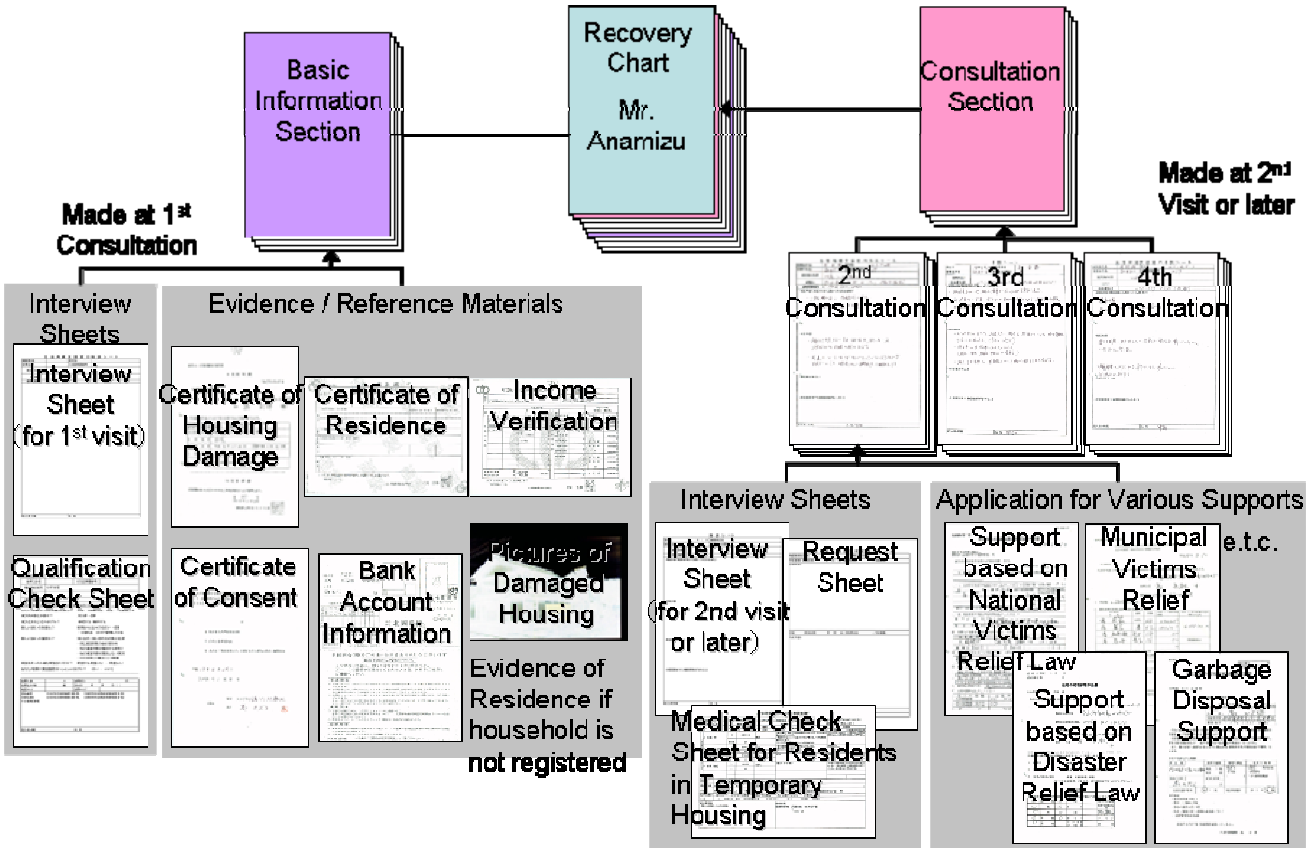

Figure 2 Structure of paper-based Recovery Chart

Figure 3 Staffs from health and welfare division (left) and residential affairs division (right) and affected households in consultation office of Anamizu Town

Figure 4 Basic consultation forms for Paper-based Recovery Chart System. They are used to record contents of each consultation and filed in the consulter's Recovery Chart binder.

Figure 5 A staff from general affairs division recording contents of consultation on Paper-based "Recovery Chart"

Figure 6 Paper-based "Recovery Chart" binders for more than 150 individual households. They were sorted by name behind the counter. Consulters could see their charts are there.

Table 1 Individual Household Assistance Programs and Division in Charge

Assistance Program	Division
Natural Disaster Victims Relief Fund	Division of Health and Welfare Affairs
Monetary Donation	
Reduction and Exemption of Various Welfare	
Temporary Housing	Division of Industry andConstruction
Temporary Repair	
Disaster Public Housing	Recovery Planning Section
Disaster Garbage Disposal	Division of Residential Affairs
Disaster Victim's Certificates	Division of Revenue
Reduction and Exemption of Tax	

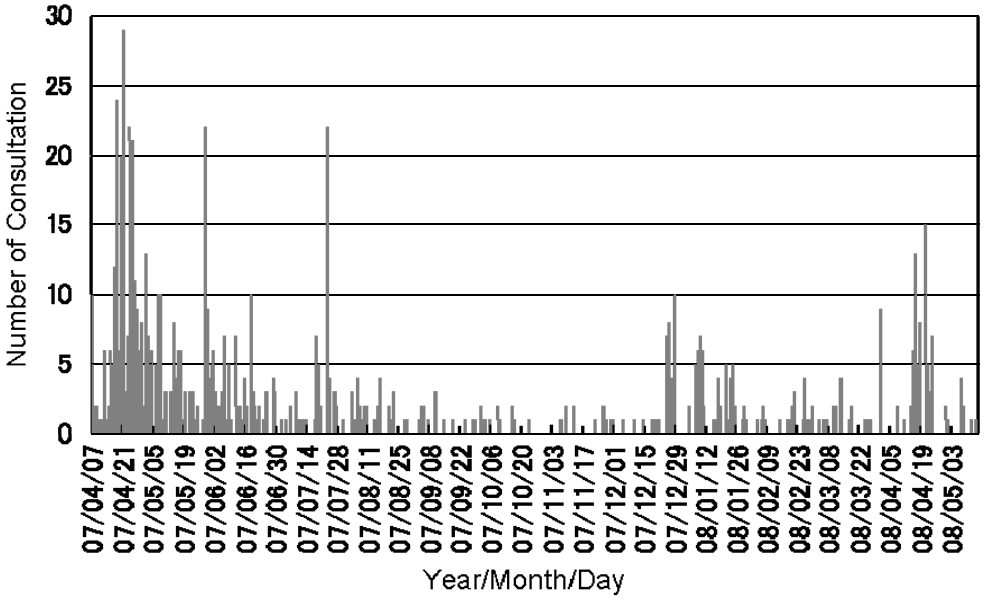

Figure 7 chronological change of number of consultation at consultation office of Anamizu town during a year since the event happened.

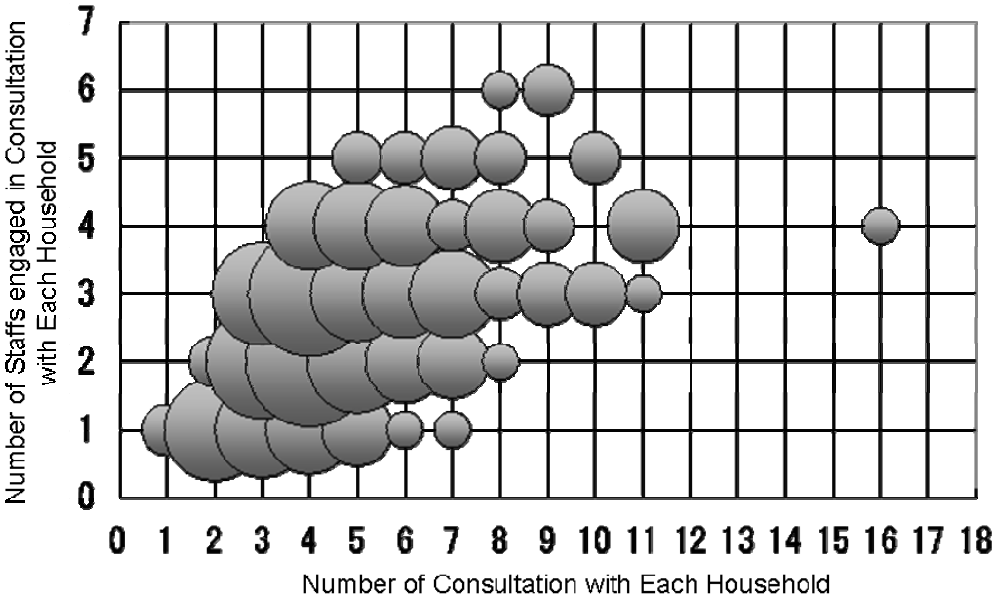

Figure 8 relationship between how many times a household accessed consultation office and how many staffs engaged in those consultations

Figure 7 shows chronological change of number of consultation at consultation office of Anamizu town during a year since the event happened. Figure 8 shows relationship between how many times a household accessed consultation office and how many staffs engaged in those consultations. It can be seen that household tends to visit consultation office many times and different staff from various division in town office responded in each visit. Therefore it was very difficult for staffs to provide consistent consultation for each household without Recovery Chart. Consultants are required to be familiar with unassigned programs since some programs are mutually exclusive and some programs strictly segment a series of needs relevant to individual household recovery in consultation. They could check which programs consulter wants to use or have already used by referring Recovery Chart. As of the end of Sep. 2007, Recovery Chart binders for all of 164 affected households eligible for assistance programs had been made.

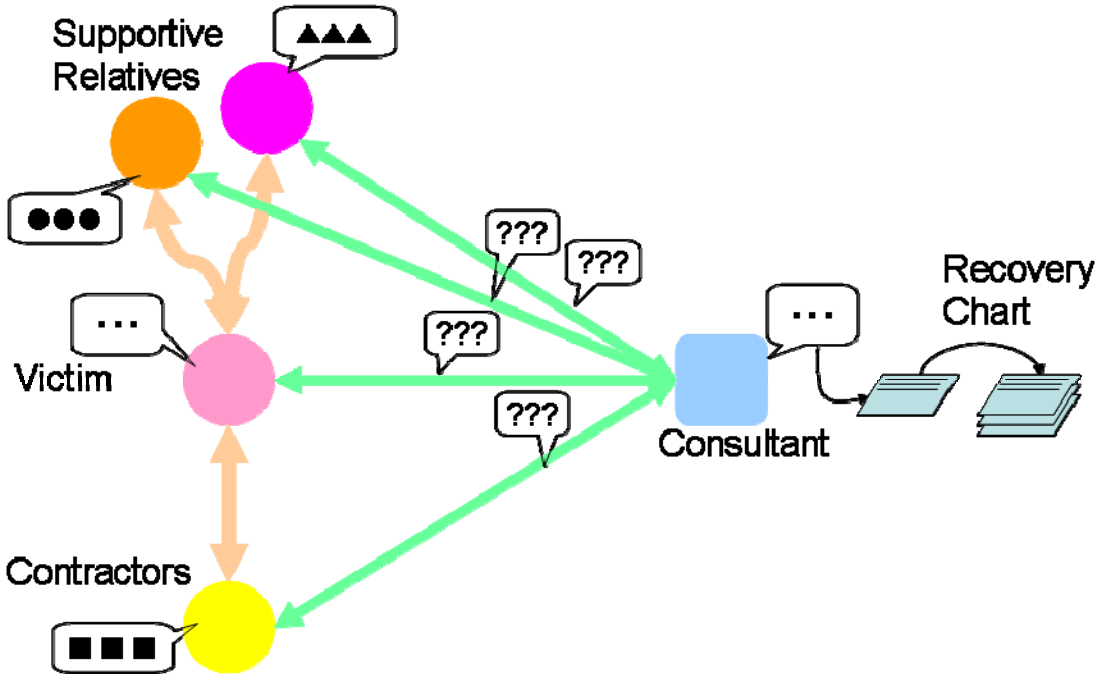

Figure 9 Various stakeholders can be involved in recovery process of a household

Consulters are not always from affected households. In case an affected household did not have enough ability to understand and apply for the programs, their relatives access the office for consultation in place of the affected household. Sometimes, recovery plan on a household was not unified even among supportive relatives as shown in Figure 9. Moreover, assistance service is not provided from local government to affected household directly but from contractors indirectly in some programs. In such case, contractors came to the office to know the scheme of programs or to submit required documents for application in place of the households. As described above, various stakeholders can be involved in recovery process of a household. It is important that all the stakeholders share common understandings on recovery process of the household. Recovery Chart can help the sharing process among them.

4. CONCLUSION

Although Recovery Chart seems to be a promising tool for customer relation management, so far, LTRA operation of Anamizu town is still ongoing. The merit of Recovery Chart should be proven when all the affected households can see their way to permanent housing according to their own condition two years later, time limit of temporary housing service. Kariwa village, one of the affected municipalities in Chuetsu-Oki Earthquake, Jul. 2007 also adopted our system. How Recovery Chart would be used in process a household seek the way to permanent housing in these two cases must be followed and compared to examine effectiveness of Recovery Chart System in comprehensive manner.

Paper-based Recovery Chart is advantageous in its high browsability for consultants and in corporealizing intangible service of consultation for consulters. But it is difficult to share one Recovery Chart binder at same time in various divisions. The larger number of binders is, the more difficult it is to manage them. Now, we are developing digitalized Recovery Chart for more efficient operation. Digitalized Recovery Chart would be useful in LTRA operation with multitude of affected households due to a catastrophic event.

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