

INTER ORGANIZATIONAL SOCIAL CAPITAL AND KNOWLEDGE CREATION ON RECONSTRUCTION PROGRAM AFTER TYPHOON MORAKOT: EXPERIENCE OF KAOHSIUNG CITY, TAIWAN

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ABSTRACT: The Morakot Post-Disaster Reconstruction Special Act was enacted on August 28, 2009. There were several dimensions of reconstruction plans, such as “Regional Reconstruction Master Plan”, “Infrastructure Reconstruction Plan”, “Community Reconstruction Plan”, and “Industry Reconstruction Plan”. As a responsible agency of Industry Reconstruction Plan, Small and Medium Enterprise Administration (SMEA) in Ministry of Economic Affairs has made efforts to initiate reconstructive project in order to recover the aboriginal industry in Namasia District of Kaohsiung City. Since the project formed within the SMEA to call for collaboration among the various departments and agencies, such as the Chinese Management Association (CMA), a non-governmental organization, and some small and medium enterprises for voluntary participation, the integration of social capital and knowledge creation among organizations became a precious experience on post-disaster reconstruction. This paper induces some characteristics of social capital formation and knowledge creation of an inter-organizational structure, and eventually brings about results beneficial to the collective public services over the collaborative network. In most sociological studies of an empirical nature on macro-level social capital, "certain characteristics" refers primarily to goodwill and trust. In other words, the creation of group knowledge requires a group of persons with social relations who show goodwill toward other group members and are willing to share information and knowledge. This eventually facilitates the cooperative actions that make exchange and combination possible for adopting all the public and private resources. So, how to transform the social relationship into useful resources is a critical issue of this study. In addition, this paper provides an experiential framework of public-private partnership (PPP) to deal with post-disaster reconstruction to other municipalities.

KEYWORDS: Reconstruction, Social Capital, Public-Private Partnership (PPP), Stakeholders, Trust

1. INTRODUCTION

Among the aboriginal villages in Taiwan, Namasia (Figure 1) is a place where you can overlook the mountains, bath within the forest, enjoy the coolness

of the river and the breeze. You can always find the plums everywhere during March to May, it's also well known as the hometown of plums in Taiwan (Figure 2). Every April and May is the harvest time for plum especially in Namasia, you will be amazed

to see the plum-picky everywhere.



Figure 1 Namasia District of Kaohsiung City



Figure 2 Natural scenery, aboriginal culture and famous plum of Namasia District

However, a deadliest typhoon, which named Morakot, impacted Taiwan on August 8, 2009. Typhoon Morakot wrought catastrophic damage in Taiwan, leaving 461 people dead and 192 others missing, most of them are citizens of Kaohsiung County.¹ Typhoon Morakot also caused serious damage to Namasia area, even destroyed all the infrastructure and domestic industry. After the typhoon, search-and-rescue teams were eventually deployed to save lives. After three weeks rescue, the Morakot Post-Disaster Reconstruction Special Act was enacted on August 28, 2009. There were several dimensions of reconstruction plans, such as “Regional Reconstruction Master Plan”, “Infrastructure Reconstruction Plan”, “Community

¹ Source: Lin, Kuen-shu. Reporter of CNA. August 25, 2009.

Reconstruction Plan”, and “Industry Reconstruction Plan”. As a responsible agency of Industry Reconstruction Plan, Small and Medium Enterprise Administration (SMEA) in Ministry of Economic Affairs has made efforts to initiate reconstructive project in order to recover the aboriginal industry in Namasia District of Kaohsiung City.

The purposes of this reconstructive project were focusing on four aspects. The purposes of this scheme are as follows:

1. Make plums a new meaning by introducing the procedure of plum vinegar making;
2. Combine the vinegar with aboriginal culture;
3. Based on plum-vinegar, integrate the local tourism resources;
4. Plum-vinegar of Namasia branded into OTOP (One Town One Product).

The above-mentioned steps are arranged with the support of policies, and the project are formed within the SMEA to call for collaboration among the various departments and agencies, such as the Chinese Management Association (CMA), a non-governmental organization, and some small and medium enterprises for voluntary participation.

As above, a reconstruction taskforce can be defined as a dynamic configuration of resources (people, technology, organizations and shared information) that creates and delivers value between the providers and the receivers. And the process of the knowledge transformation have to use as the conception of public policy as the core, to get the connection among the localization, community neighborhoods, consumption messages, tour guide and in many ways to integrate the resources. Thus, this paper tries to illustrate about:

1. What is the form of this inter-organization?
2. How do the organizations create task-oriented

knowledge ?

3. How do they apply the knowledge into practice?

Under this context, we choice the “PPP” approach carefully, because the “private sector” partner is related to the how effective the model workable.

2. LITERATURE

This part introduces some related concepts, which includes trust and social capital, public-private partnership, and knowledge creation respectively.

2.1 Trust and Social Capital

Generally, trust relations help to guarantee the effectiveness and to improve the efficiency of organizational management. Trust is especially helpful in reducing transaction costs. In the organizational level, Krackhardt and Hanson (1993) illustrated a few of examples of how team-work can be improved by mutual trust in a re-engineering design team. For the form of trust-based organization, Shapiro, Sheppard, and Cheraskin (1992) have proposed a trust typology, that is deterrence-based, knowledge-based and identification-based types of trust. Under a trust-based structure, social ties and network structures always stand at the center of these trust studies. Coleman (1988) asserts that obligations can form a kind of capital that is accumulated through mutual support, this process of benevolent interactions breeds trust. Putnam (2000) defines two main components of the concept: bonding social capital and bridging social capital. “Bonding” refers to the value assigned to social networks between homogeneous groups of people and “Bridging” refers to that of social networks between socially heterogeneous groups.

Since mutual trust is an indispensable base for facilitating collaborative network, a key way to build

mutual trust is to share one's original experience. Brown and Duguid's (1991) talked about “evolving communities of practice”, these evolving communities of practice often incorporate people from outside and can provide important contributions for future developments. Beyond the individual level, the level of cohesion of a group also affects its social capital (Perkins and Long, 2002). We interpret this effect in terms of inter-organizational culture. In this project, traditional aboriginal culture plays an important role in encouraging information openness, walk-around management, and team-work spirit. We emphasize on the aboriginal culture, and hope to bring the different stakeholders' relationships (capitals) into a public-private partnership framework to integrate resources to run reconstructive project effectively.

2.2 Public-Private Partnership

Generally, the item “managerialism” indicates the changing trends in reinventing government, market restructuring and private involvement in constructing infrastructure, and some practical approaches were begun after the “new public management” view (Osborne and Gaebler,1993; Huges, 1998), such as decentralization, deregulation, privatization (Table 1). The application of public-private partnership brings together all stakeholders such as end-users, researchers, industrialists, policy makers, and so on.

Table 1. The transformation of public administration

Managerialism in Public Administration	Traditional Public Management	New Public Management
Mechanism	Hierarchy ←	→ Market
Spirit / Goal	Scientific management Impersonalization	Businesslike governance Banishing bureaucracy Reinventing government
Theoretical Basis	Cost-benefit analysis Strategy behavior theory	Public choice theory Transaction-cost theory Principal-agent theory
Framework	Big government	Deregulation / Privatization
Approaches	Government control	Contracting out / Outsourcing BOT etc.

Under the public-private partnership approach, a cooperation relationship between government and private sector is achieved to provide for public requirements. A PPP can be established in one of the various forms, such as institutional or network oriented. The institutional approach insists that an institutional arrangement is the force that makes people reliable (Gambetta, 1988). The network approach argues that social ties and a network type of structure play important roles in the process of producing trust (Granovetter, 1985; Uzzi, 1996; Zucker, 1986). In this project, trust relationship is embedded in public-private partnership, which makes people work together to accomplish the goal no matter how badly damaged it caused. So, the social capital embedded in PPP should bring a visible emergence of the organization's knowledge network. Participants give meaning to their bodily actions of creating, adapting, and using information. Participants are also reflected to the organization, and a new process of organizational knowledge creation is again initiated.

2.3 Knowledge Creation

Under the dynamic social system, the knowledge in solving problems of public administration is distributed over many stakeholders. Since the stakeholders interact within a network, the network structure plays an important role in dealing with all kinds of knowledge. Within an organization, it is also possible to build knowledge at an inter-organizational level (Nonaka, 1994). The formation of alliances could be an inter-organizational knowledge creation process. For instance, Krackhardt and Hanson (1993) drew an overall organizational by diagramming three types of social networks: a trust network, a consultative network and a communication network. In practice, these three types of social networks may work simultaneously, or can not be distinguished. This

trust-based consultative network works as the sharing node of political information and the backing of one another in a crisis. Consultative relationships are built by exchanging working knowledge, and should cause both sides to have confidence in each other's professional competence. Thus, it provides a context for them to create knowledge and amplifies the knowledge created and crystallizes it as a part of the network organization (Nonaka, 1994). This process can also facilitates interaction among organizational members, make it easier to transfer tacit knowledge, facilitate mutual trust and eliminate cheating. From the viewpoint of knowledge flows, process-oriented incentive practices rather than outcome-oriented incentives should be emphasized (Iwata et al., 2006). So, the new resources proved to be VRIN (Valuable, Rare, Inimitable, Nonsubstitutable) among stakeholders can the improve relationship, dynamic capabilities and performance to whole organization (Barreto, 2010). Thus, moving from the bottom to the top, the bottom-up management style is rarely used. The PPP shaped organization plays a critical role in mobilizing tacit knowledge and through socialization, combination, externalization and internalization, for implementing more effective knowledge creation.

3. METHOD

The idea for this study is principally to offer a whole picture of post-disaster reconstruction process of Namasia District of Kaohsiung City. The research method employed is an explorative case study. Besides, the data source involves literature review, case observation, documentation, and interview with relevant authorities are coded for the concept of constructs. Finally, the axial coding method was adopted to build and explain important stakeholders, events, factors in whole story line. The research procedure is shown in figure 3.

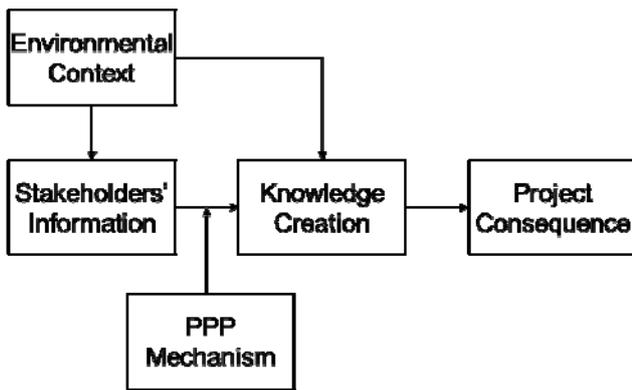


Figure 3 The research procedure

4. DISCUSSION

The reconstruction project was initiated three years ago, SMEA in Ministry of Economic Affairs, CMA and dozens of volunteers work together to turn plum into a special highly value products. Nowadays, the plum product has its own standard S.O.P procedure and also builds up the brands. Since non-governmental organization, and some small and medium enterprises for voluntary participation, the integration of social capital and knowledge creation among organizations became a precious experience on post-disaster reconstruction. The whole process can be traced into two major phases, social capital formation and knowledge creation respectively.

Phase 1: Social capital integration

During this phase, the aboriginal farmers and governmental agency (CMA), defined two advantages of Namasia, beautiful mountain and multi-aboriginal culture. Under the same vision, the relationship building and communication was operated via hundreds of meetings. In the phase of events selection process, it is a very long and there are many occasions for decision making, to recognize what have to do first. As a project coordinator said:

...We(CMA) can use these natural resources to promote the local business and when there are visitors, they(aboriginal farmers) can also get some savories home such as plum vinegar.

So, the taskforce was initiated from all the different professional fields, including specialist in plum manufacturing and expert in marketing from neighborhood universities. The coming events about reconstruction were classified into regular/ in-regular, and pooled into urgent/ ordinary selection.

During these periods we held many events to improve Namasia plum vinegar. These events helped the business owner to learn how to success in their business and made the business stronger. After doing events' selection, the value-add process followed. As a specialist in plum manufacturing said:

...We provide the training courses including the designing for the first year, natural plum farming for the second year and finally the standard procedure course for the third year.

...Not only we offer these courses but we also help to build the confidence of local business. They need to be aware of the product quality control and be able to sell their products confidently. And for those who are interested in starting their own business we can provide them with lots of opportunities.

Since the priority was identified, the purposes of this project became clear and definite.

1. Make plums a new meaning by introducing the procedure of plum vinegar making:

...We can ask the vinegar-making expert to share their experience and help the locals or Icompany to make plum-vinegar. To make it as an ambassador of Namasia. (Plum specialist A)

2. Combine the vinegar with aboriginal culture :

...When we promote Namasia, its only for the the taste but also the artistic value. We can achieve it by adding traditional artistic matter into the bottle-design. (Marketing expert A)

3. Based on plum-vinegar, integrate the local tourism resources:

...First we can have a few selling spots in the

town to make the visitors familiar with Namasia plum vinegar combine the trip of plum-picking with the local festivals to help the tourism bloom! (Project manager A)

4. Plum-vinegar of Namasia branded into OTOP (One Town One Product):

...Establishes the vinegar an innate brand, becomes a township characteristic the fine commodity, lets the nation the consumers may buy excellent in quality, have the characteristic healthy plum vinegar, and plans promotes the overseas. For instance, plum are considered healthy food in Japan. In the past, the plums in Taiwan used to be exported into Japan. Please make more efforts on the brand! (Official from SMEA)

By looking back the process, as shown in figure 4, there are all skilled professionals cooperated in achieving their goal of attracting visitors and boosting the local economics. That's how different types of social relations produced among several stakeholders. Since the social capital was induced, the PPP mechanism played an integrator to arrange daily meeting and make some fragmental events into routines.

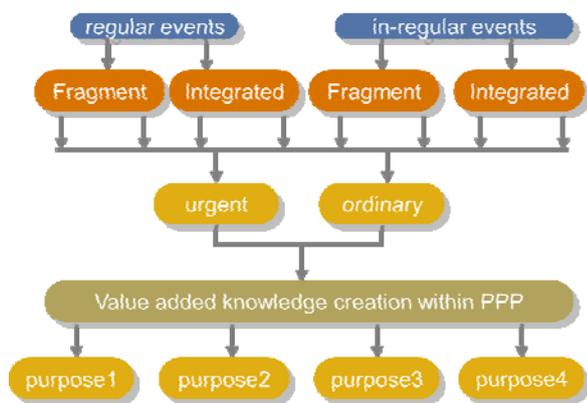


Figure 4 Social capital integration process

Phase 2: Knowledge creation

Knowledge creation activities started within different information source. Since the common subject was defined, the main purpose of promoting

this plum vinegar business is to establish the brand awareness to make it competitive and to delicate the product. This one town product project is on the basis of helping the local business to connect with other major business networks such as restaurant and art craft workshops. This process focuses on tacit to explicit knowledge application.

Spreading of knowledge is important for inter-organizational activities, especially share knowledge with the stakeholders involved. The basis of all useful knowledge is that information is transparent and communicated. If it's not well communicated on the agenda, it will probably not be valued. As shown in figure 5, the useful knowledge can serve as a driving force on VRIN resources. Thus, all resources can be delivered into specific scenario.

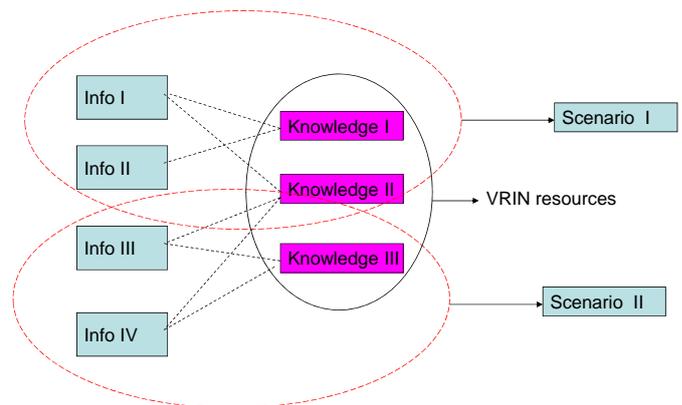


Figure 5 Knowledge creation process

In practice, the four purposes of this project are major information sources for knowledge creation. Since the Namasia plum vinegar is a new product, it needs to focus on its marketing strategy. Thus, we have come up with three stages over three years:

Stage 1: Announce Namasia as a hometown of plum vinegar.

...In this stage we focus on discovering vinegar the local specialties and build their confidence. There are training workshops for local farmers to help them build their own business. (Plum specialist B)

Stage 2: Re-organize the stakeholders' network into a formal channel.

...In this stage we focus on how to create a logo which can symbolize the Namasia plum vineager (figure 6). To accomplish this, we have to create other networks into sales our own network and also create alternative channels. (Marketing expert B)



Figure 6 The symbol of Namasia plum vineager

Stage 3: Work as a platform.

...In this stage, we have to work as a platform. The best plum-vinegar in Namasia is just a product. We have to make it a special event of OTOP (figure 7). The CMA have to organize a particular exhibition, then invite first lady to introduce such a touching story that every one involved in this project is standing strongly, a new reborn after typhoon Morakot! (SMEA & CMA)



Figure 7 OTOP Logo

Finally, this project has combined 6 major business owners together to promote plum vineager

since three years ago. In addition, it consists of the logo of OTOP and the Mountain View and river picture to indicate its natural pollutions-free environment. Most importantly, the tattoo symbolizes the sprint of aboriginal reborn! The integration of social capital and knowledge achieved its goal of skilled aboriginal farmers, attracting visitors, and boosting the local economics during the post-disaster reconstruction period.

5. CONCLUSION

Though the typhoon Morakot damaged the infrastructure and industries, the aboriginal citizen in Namasia never give up. People work together to accomplish the goal no matter how badly damage had been caused. To sum up, there has been more complicated problems have generated in the complex public-private partnership (PPP) during the implementation of this project. This study explores the critical factors that determines the success integration process of PPP and intends to generate practical experiences to deal with post-disaster reconstruction to other municipalities. The study of this reconstruction project provides the first hand pilot experience to other municipalities that adopted PPP approach in Namasia, the multi parties perform a tacit understanding interaction for the common goal in the re-construction phase. Hence, it helps to provide a new vision and deliberative arguments in public administration. In recent days, Namasia has been reformed and this beautiful reborn phoenix is ready to spread its wings to make the visitors admire the dramatic changes on it!

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