

Social innovation in the new co-operative model

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This paper attempts to explore the potential of social innovation through the diffusion of the new cooperative model. Although there have been a plenty of innovative and successful activities among traditional co-operatives such as credit unions, consumers co-operatives and workers co-operatives, this paper focuses on the ‘newest’ ones, which emerged relatively recently in the 1990s and after and which have characteristics distinct from traditional co-operatives.

First, the paper briefly reviews the concept of ‘social innovation’ and how it is different from traditional innovation. Then it takes up as an example of renewable energy co-operatives in Europe, on which I conducted a preliminary research through on-site visits and interviews during my stay at Center for Social Economy (CES), University of Liege.

We are interested in this type of co-operatives as social economy (third sector) organizations that have great potential to contribute to the development of renewable energy as well as sustainable regional development in Japan after the 3.11 event in 2011. In Japan, the “Civic Power” movement started in Hokkaido, the largest and northernmost of Japan's 47 prefectures, in the 1990s and has been spread to many other districts in Japan. However the diffusion and influence of this model have not taken place as fast and strong as had been expected. There are many obstacles, including the absence of clear national energy strategies and inconsistent government policy as well as limited capacity of local authorities to carry out or support such projects. However, it seems to be also true that social economy organizations such as co-operatives have not been successful in creating an innovative model(s) to achieve the intended objectives. In this regard, the experience of and lessons learned from REScoops can be of particular relevance to Japan. It may also be applicable to other Asian countries like China, India, and Indonesia, which are increasingly responsible to and need to address climate change.

1. Social Innovation: Definition and dimensions

According to Mulgan (2006), social innovations can be defined as: “innovative *activities and services* that are motivated by the *goal of meeting a social need* and that are predominantly *developed and diffused through organizations whose primary purposes are social.*”

Social innovation is the same as traditional innovation defined by Schumpeter (1934) in involving ‘newness’ or discontinuous change that bring in new combination in the production process such as: new products or new quality of products, new production methods, new markets, new source of raw materials, and new ways of organizing the production activities. Innovators also face and have to overcome substantial risks. However the traditional concept of innovation is heavily based on manufacturing rather than services and not free from the standard neoclassical, narrow view of profit-maximizing economic agents, who are motivated almost solely by pecuniary incentives. In addition, innovations often take place as unintended by-products of other attempts, and the resulting goods or services are not necessarily beneficial to the society.

Innovation in the ‘Knowledge Economy’

While sharing the first two aspects of Schumpeterian innovation, social innovation differs in several important ways. First, the historical and institutional contexts have changed dramatically since the time of Schumpeterian innovation. In the mid- to the second half of the 1970s, industrial economies entered the era of post-industrialization, in which industrial structure in the economy shifted from manufacturing to services, and then, by the late 1990, they evolved into the so-called ‘knowledge economy’. The production process became less dependent on physical capital and economies of scale, as had characterized manufacturing, but increasingly relied on human capital and social capital.

Second, the characteristics of services made the nature of innovation as well as the production process profoundly different from conventional innovation. Services are characterized by intangibility; inseparability (of production and consumption); perishability; and co-production (the interaction between service providers and their customers, the latter being active participant in the production process) (e.g., Osborne [2011]). Social services such as education, health, childcare and elderly care give rise to externality due to their quasi-public good nature. The other important kind of externality is ‘coordination economy’ based on complementarity arising from co-production. Thus, innovation is increasingly become shaped as a complex process, where organizational and institutional contexts matter. Innovation

activity becomes a *collective* process in which people and organizations have to cooperate:

- The sources and actors of innovation change from the 'lonely genius' to large corporations, increasingly also involving SMEs and universities, and then, social economy (third sector) organizations.
- Social capital connecting people, groups, and organizations is vital.
- The role of government and public policy becomes important in complementary monitoring and in accommodating risks and creating favorable environment.

Features of social innovation

We can identify several components that make social innovation distinct from traditional innovation. First, social innovation has *explicit* social aims and involves *deliberate* efforts to address a 'performance gap' between the goal and the actual situation. Today, it is responding to various social problems and challenges such as:

- Economic crisis and resulting unemployment, poverty and inequality issues at local, regional, and global level,
- Social exclusion and marginalization, and
- Sustainable development (the triple bottom line of economic, environmental, and social).

Second, social innovations require the innovators the capacity, capability and competence to demonstrate different kinds of 'newness' from traditional ones, which we call *social entrepreneurship*. This involves new ways of combining and organizing productive resources (labor, human and social capital, and financial capital) including non-commercial resources (e.g. voluntary labor and professional help, donations and grants) in the process of service delivery and new ways of coping and managing risks.

2. The new co-operative model and social innovation

The new co-operative model

The new co-operative model is found among cooperatives newly created or re-defined themselves in the 1990s and characterized by new *social entrepreneurship*. The definition of a 'co-operative' used here is functional rather than legal. Taking on various legal forms, these co-operatives generally have the following features in common.

- They have collective identity as a co-operative (values and principles) in accordance with the ICA Co-operative Identity pronounced in 1995.
- They share strong social orientation towards sustainable development and services of

general interest (not only oriented towards the interest of members)

—There are evolving multi-stakeholder organizational structures and processes both internally (e.g. board members) and as external network, together often called ‘co-production’. ‘Bonding’ social capital plays an important role in the internal structure (within the organization) and ‘bridging’ social capital in external network (between organizations). ‘Relational skills’ become an indispensable component of leadership ability.

With the common characteristics above, new co-operatives develop and diffusing innovative activities/services in the production (delivery) process in a more sustainable manner. Among examples are work and social integration co-operatives for the handicapped, regional development co-operatives and renewable energy co-operatives

2. REScoops in Europe: an example

A REScoop is “a group of citizens (farmers, landowners, and other citizens) that cooperate in the field of renewable energy (RES), developing new production, selling renewable energy or providing services to new initiatives” (REScoop.eu: <http://www.rescoop.eu>). Cooperative enterprises are now active on both sides of the energy market in Europe: demand (purchase and consumption) and supply (production and distribution).

Mostly born in the 1970s and 1980s, and developed in the favorable political and institutional environment in the 1990s, the number of REScoops is now said to reach a few hundred over European region. An initiative was created at the EU level in March 2011: European Federation of Groups and Cooperatives of Citizens for Renewable Energy (REScoop.eu). Among earlier-developed front-runner co-operatives, which are consumer-producer and also distributor in some cases, are Ecopower (Belgium), Middlegrunden Offshore Wind Cooperative (Denmark), Energy4All (UK), and EWS (Germany). Existing studies related to REScoops are scarce, but we could name some such as Huybrechts and Mertens (2011); Mendonc, Lacey and Hvelplund (2009); and Warren and McFadyen (2010)

Social innovation and RES

Social innovation by REScoops is based on the recognition of the nature of renewable energy such as wind, solar (thermal and PV), small hydro, biomass, and geothermal. Renewable energy is environmentally beneficial technology to cope with climate change, but it is more than ‘hard’ technology. It is intrinsically decentralized, small and medium scale, and

democratic, resilient to disasters (Lovins, et. al. [2001], Mendonca, et. al. [2009], etc.). Economies of scale is less important in production and perhaps also in local (lower voltage) distribution than conventional fossil fuel and nuclear energy. It is particularly suited to rural and remote areas and for decentralized production. Its potential contribution to rural development is enormous, and it is crucial to human development (in terms of energy security) in low-income countries. Dirk Vansintjan, the CEO of Ecopower, Belgium, pointed out that Renewable energy is local public good, so that it should be owned by the community and the benefits accrue to the community.

Social innovation in REScoops

“The decentralized nature of renewable energy requires new organizational structures and alliances, that’s the role of co-ops.”

—Preben Maegaard, the founder and Director, Nordic Folkecenter for Renewable Energy.

As co-operative enterprises, REScoops have obvious advantage of the cooperative model (over the for-profit company and the NPO model): They adopt collective ownership, which gives easy way of raising funds and market access and also ensures democratic principle (e.g., Spear [2000]).

More importantly, REScoops are social enterprises engaged in economic activities for social purposes. They originated from social movements after the Oil Crisis (1973 and 1979) or the Chernobyl accident (1989) and have an explicit social goal of achieving energy transition from fossil/nuclear to renewable energy through citizen initiatives. They tend to preserve ‘associative elements’ in their organization and external relations and in their economic activities.

As the historical and institutional context varies and there are different financial considerations across countries, REScoops take on different legal forms. For example, in Denmark they are legally ‘partnerships’ because the Danish law does not allow co-operatives engaging in the electricity market. However they are co-operatives in function maintaining the collective identity as co-operatives: While REScoop.eu contains the ICA Co-operative Identity (1995) as it is in its charter, its principles are found in the bylaws of Middelgrunden. Moreover, the democratic principle of co-operatives is more discernible among REScoops. It is beyond the formality of ‘one person one vote’ but a bottom-up process with *direct* member participation (local farmers, landowners, and community groups) from the very beginning

(during planning or even the pre-planning stage) in a form of frequent meeting, information sharing, and learning by talking ---the process which an article describes as ‘innovative democracy’ (Mendonça, et. al. [2009]). With their business producing good returns, legal co-operatives are subject to the limited profit distribution principle (generally 6 percent at maximum), and non-legal co-operatives voluntarily set their respective upper limit to profit distribution (e.g. 5 to 10 percent among Energy4All co-operatives) and keep the minimum shares low so that the shares are owned by as many members as possible at affordable cost.

So far the REScoops, at least, the front-runners of them, seem to have achieved high economic and social performance. The co-operatives are able to supply energy to increasingly more consumers at lower cost than old suppliers from conventional energy sources. Local production demands less transmission lines and thereby minimizes grid loss. At the same time they charge electricity at fixed rate regardless of the amount consumed, so that they encourage energy saving rather than increasing profits. There is strong evidence for actual energy saving among consumers of these REScoops (e.g. Ecopower, EWS). Perhaps the most important social contribution so far is that they promote and create awareness and local acceptance of renewable energy (Mendonça, et. al. [2009]; Wallen and FcFadyen [2012]), particularly such as wind and geothermal, the projects of which tend to be large and often compete with other environmental objectives (birds, landscape, noise, vibrations, etc.) and alternative resource use (hot springs).

Evolving organizational structure and network

Another important feature of social innovation in REScoops is their internal organizational structure and external network, which is not static but evolving over time. This characteristic helps the co-operative maintain its social objectives and ‘associative elements’ and avoid bureaucratization of the management and institutional isomorphism as well as overcome obstacles and potential weakness.

The multi-stakeholder nature of REScoops is evident both in the internal organizational structure internally and outside network. Generally, the board consists of representatives from a variety of organizations and groups (local communities, other co-operatives, NGOs, academics/professionals, etc.) with which the co-operative collaborate. Collaboration with community organizations and NGOs (including setting up on their own) enables the co-operative to be constantly reminded of its original social aims, to engage in related social

activities (such as addressing fuel poverty), and to influence public policy collectively through information sharing and lobbying. Collaboration with local governments are also important as seen in the case of Ecopower, Belgium, for which the successful collaboration of ecological-minded City of Eeklo in a wind project became a turning point of its development.

A possible weakness of a REScoop is a shortage of (access to) capital, particularly at the starting point of a project. It is increasingly so, as the energy market tends to be dominated by large corporations and the project scale becomes larger. To cope with such situations the leading co-operatives are expanding their member base by involving non-producer consumers or members outside the locality while giving preference to the local people and community. They also developed alternative ownership models such as: 1) Community Co-operative (100% Ownership) model; 2) Shared Ownership Model; 3) Royalty Instrument Model (co-operative purchase of stakes in other developers' projects); 4) Regional Co-operative Model (fund raising through regional REScoop organizations); and 5) Loan Model (loans from existing REScoops) (Energy4All). In Denmark, a wind co-operative, Middelgrunden, even became able to develop a large off-shore wind project near Copenhagen, Middelgrunden Offshore Windfarm, through the co-ownership with Copenhagen Electricity Company (owned by the Municipality of Copenhagen and later sold to a private utility Dong Energy). The half of the 20 wind turbines are owned and operated by the co-operative.

Education and training

Education and training are also important function REScoops. Energy4All in UK, which in itself a network of co-operatives uniquely owned by the REScoops it assists, is a growing organization as additional co-ops take a share upon establishment. In addition to offering management services and technical consulting to new co-ops, Energy4All facilitates communication and co-operation between the co-ops. Partially-funded by EMDA and Greenpeace, it launched in 2009 the 'EnergySteps', a self-help website that guides individuals and communities to assess the viability of their projects through the key aspects (9 steps) of a wind energy project. Once this process is complete with the viability assured, the groups are encouraged to contact Energy4All for help to move forward.

Policy and institutional support

Finally but not least importantly, government policy and institutional supports are indispensable for the success of REScoops. Overall national and regional policy for

renewable energy is crucial. De-regulation of electricity market and policy schemes such as feed-in-tariff (FIT) are another important factors. Commitment of local authorities also helps greatly.

The history of wind energy development in Denmark provides useful lessons on the importance of stable renewable energy policy. Most of Denmark's wind farms were erected by local co-operatives and individual farmers during the 1980s, when the Social Democratic government was in office and provided generous 30% subsidy for new wind energy installations. Thereafter, the policy environment was unstable due to the changes of the governing party between Social-Democrats and Conservatives, though three policy measures for community-owned wind energy remained and helped the co-operatives survive: the right to connect to the electrical grid; a legal obligation for utilities to purchase wind energy; and a guaranteed fair price. Under the revived conservative government during 2001 and 2008, the policy was shift to free market and the consolidation of the wind energy sector to a more concentrated, centralized industry. As a result, the industry has become an oligopoly (Christianson, Folkecentre). The Social Democrat government adopted an ambitious energy strategy in 2010 of removing fossil fuels entirely from its energy system—including transport—by 2050 without introducing nuclear energy or carbon capture and storage. It also obligated all new renewable energy projects to offer minimum 20% ownership to local people, e.g., co-operatives.

Challenges and prospects for diffusion

REScoops as a new co-operative model

This paper demonstrated that REScoops are representative of the new co-operative model. The factors that led the front-runner REScoops to success are: maintaining and sharing the common Co-op Identity; innovative democracy including constantly evolving organizational structure and external network (bonding and bridging social capital); and committed and motivated leaders with high relational skills.

Huybrechts and Mertens (2011) points out that the major weakness of REScoops other than 'barrier to entry' (limited access to capital and locations, consumer inertia and absence of public support) is a lack of *cognitive legitimacy* of this model among citizens and also by local authorities, which they call 'cognitive barriers'. That is, REScoops still suffered from a lack of recognition and appreciation of their model and also of the lack of awareness of the

challenges it addresses. The study emphasizes the need for ‘institutionalization strategies’, and points to four types of strategies to overcome these barriers: to de-legitimize mainstream business models; promotion of the new model; internal alliances; and external alliances.

In fact, the leading REScoops already seem to be implementing these strategies, and the creation of REScoop.eu was in line with these strategies. REScoop.eu launched an initiative, REScoop 20-20-20, in April 2012 with 12 organizations (REScoops, NGOs and a research network) in seven countries and with the support of the Intelligence Energy Europe Program (IEEP), European Commission. Cooperative Europe is also actively backing this initiative. REScoop 20-20-20 aims at increasing the number of new successful citizen-led renewable energy projects by helping new and prospective RES projects through identifying and sharing European wide best practice.

There are many attempts of citizen-led ‘community power’ initiatives outside Europe including the US, Canada, and Japan. So far we have found that REScoops as a new co-operative model is particularly relevant and useful to disaster recovery and sustainable regional development in the post-3.11 Japan, and we hope to continue our research as a comparative study between Europe and Japan and on the applicability of REScoops model to Japan and other countries.

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