

Siparti 3-S, Triple Helix, and Social Capital in Strengthening Local Competitive Industries in Indonesia¹

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Abstract

Siparti 3-S, triple helix (TH), and social capital (SC), are perceived relevance and appropriate paradigms in the context of strengthening local competitive industry products. This article explains analytically the notion of employing these paradigms in designing, constructing, and delivering small industry empowerment programs in Indonesia. Synthesis of *Siparti 3-S* generated from the author's view and experience as a researcher and consultant on the development of small industry in East Java. Critical analysis of TH based on the orientation and goals of triple helix model (THM). The existence and roles of SC perceived as the glue and lubricant as well in the connection of *Siparti 3-S* and TH. The plausibility of *Siparti 3-S*, TH, and SC as appropriate paradigms in reaching-in and reaching-out to strengthen small industry reflected upon one of the author's study on the success story of *ASPILOW* (*Asosiasi Pengusaha Industri Logam Waru*, Association of Waru Metal Industry Firms), Sidoarjo, East Java.

Keywords: *Siparti 3-S*, triple helix, social capital, *SILOW*, *ASPILOW*

1. Introduction

Siparti 3-S is the acronym of *Sinergi Partisipatori 3 Sumberdaya* - Synergistic Participatory of the 3 Resources. The word *synergy* here has two meanings, as a noun (synergist) and as an adjective (synergistic). The word *participatory* is an adjective of participation of the three basic resources (human resource, natural resource/physical environment, and social and cultural resources). *Siparti 3-S* is defined as the physical appearance and nature of how the synergy of the three basic resources functioning institutionally, organized and managed properly in the context of strengthening local competitive industry products. Within this context, *Siparti 3-S* perceived as a combination of different resources those providing additional positive effect (as positive synergy), not the negative one. Arithmetically, $2 + 2 = 4$, not $2 + 2 = 3$. However, it is possible that under the specific circumstances $4 - 2 = 3$. According to Andrushko (2012), the later condition refers to "reverse synergy", since the result 3 is getting an additional positive result 1, from the reduction of resource 4 with resource 2. Due to the dependency of *Siparti 3-S* on the context of process, the integrative definition of synergy proposed by Benecke, et al (2007: 9): *synergy is a concept that describes the systemic processes whereby business units of diverse, complex organizations will generate greater value through working as one system than working as separate entities*, is also used here as underpinning theory.

The first section describes theoretical and empirical background toward the question about what, why, and how *Siparti 3-S* becoming a plausible conceptual framework in reaching-in synergistic participatory. The second section analytically linked to the notion of TH as a paradigmatic view to synergize interactively three parties (local government--university--local industry) in strengthening local competitive products. The third section analyses and describes the existence and significance role of SC as the element of gluing and lubricating *Siparti 3-S* in reaching-in as well as reaching-out the developmental phases of *SILOW* (*Sentra Industri Logam Waru* - Waru Metal Industry Center) to the birth of *ASPILOW* (*Asosiasi Pengusaha Industri Logam Waru* - Association of Waru Metal Industry Firms) in Sidoarjo, East Java. The fourth section describes and configures how *Siparti 3-S* and SC altogether reaching-out in synergistic participatory among local government, university, and *ASPILOW*. The last section synthesizes the process and the ultimate form of synergistic participatory into the hybrid trilateral organizations of TH.

2. *Siparti 3-S* in Strengthening Local Competitive Industry Products

The basic concepts and principles of *Siparti 3-S* were first introduced, when the author asked to draw up a proposal to induce the implementation of *GKD* (*Gerakan Kembali ke Desa* - Back to Village Movement) project

¹ Developed from earlier version presented at the National Seminar on "Optimisme Ekonomi Indonesia 2013, antara tantangan dan peluang" (Optimism of Indonesia Economy 2013, between challenges and opportunities). Open University, Jakarta, December 12, 2012.

initiated and declared by Basofi Sudirman (as the governor at that time) (Witjaksono, 1997). The notion behind *GKD* was notably following the success of *OVOP* (One Village, One Product) of Oita Prefecture in Japan (see Stenning & Koichi, 2008, Savitri 2008, and Kuswidiati, 2008). Proposal title was "*The Synergism Participatory 3-S in the GKD Empowerment.*" The notion of synergism participatory in that proposal title was addressing to the question of how to integrate functionally and effectively all potencies and capacities resources available in every village under the *OVOP/GKD* project. Resources are considered to be the foundation of each village competitiveness are the basic resources, which are already there, owned, controlled, and managed by the stakeholders in the villages. These are: (a) human resources (HR), (b) natural resources/physical environment (NR/PE), and (c) social and cultural resources (SR&CR). The basic principles as a condition of synergistic participatory resources are (see Witjaksono, 1997: 3 & 1998: 5):

- (a) HR is the people living in the village who have knowledge, skills, and experience required with, commitment and strong integrity to dedicate to the various efforts to achieve *OVOP/GKD*.
- (b) NR/PE is the existing of natural resources or physical environment available in the village those that relatively easy to access and process under the circumstances of implementation of appropriate systems and technologies.
- (c) SR is social resources that directly or indirectly support the continuity of the process production under the scheme of *OVOP/GKD*, in the form of institutions (social or business) including the social order inherent in it.
- (d) CR is the local cultural resources that sustains and/or become nurturing products of the entire activities *OVOP/GKD*.
- (e) Conditions (a) through (d) above should intertwine functionally, environmentally, intense, and solid.

The following examples pertaining to principle (e) (see Witjaksono, 1997: 4-5 & 1998: 6-7).

- (1) The intertwined between HR-NR/PE-SR&CR should be functional, and generate or create opportunities for the development of sound environmentally economic and business.

Functional

example:

In the traditional wooden lathe home industry, ranging from the design, construction, finishing, up to the distribution to the market, is said to have been functionally intertwined if in each phase the overall HR, NR, PE, SR, and CR are indeed deliberately has been planned simultaneously (all at once, instead of gradually). So, when deciding HR (whether the designer, artisan, technician, or marketer) should be thought and planned together from the beginning. Likewise with the NR, procurement of materials (wood), and supplementary materials (lacquer, varnish, paint, etc.), must be planned together, and linked directly to its HR employed. SR&CR in this case would be the target market (as users, buyers and connoisseurs) final products of the wooden lathe. This third component functionally must be planned together.

Environmental

example:

If the above example is still on planning of "what and how" HR, NR/PE, and SR&CR, then they are all have to be environmentally resonance in creating such spin-offs. This could be creating some new productive economy activities, or the advanced production of the other parts of wood those are having opportunities to be developed later - a new business. Back to the example above, the starting point of a business is wooden lathe, but the environmentally principle should be able to answer the question whether from one tree there are no other parts can be processed further? What about the outer skin, flesh stems, roots, branches, and leaves of the tree? Environmentally principle applied at the design stage. Thus, although the core of the industry is wooden lathe, especially from the heartwood, from the beginning to be designed that not only processing the heartwood, but also other parts of the tree must be "sold". The leaves can be sold at a botanic drying process (offset or herbarium). Outer skins for interior/exterior decoration crafts (frame, pedestal calligraphy, etc.), roots or stumps for sculpture and craft (for table/chair/ornament/garden ornaments, etc.).

- (2) In order for the functionally and environmentally be effectively planned and implemented (in accordance with the target), then in the process of synergizing must possess an intense and solid. By intense, means that the functional linkages will appear on the extent HR, NR/PE, and SR/CR intensively involved in each stage/phase production and distribution. Meanwhile, to cope with any changes (from inside and outside) the intensification must have a high solidity. To any change facing, the linkage should be able to survive in a flexible and adaptive. Flexible in the sense that relatively easily changed whenever required. Adaptive in the sense that it is always changing as it should be (usually through modification process).

The above principles in the context of OVOP/GKD synthesized as follows:

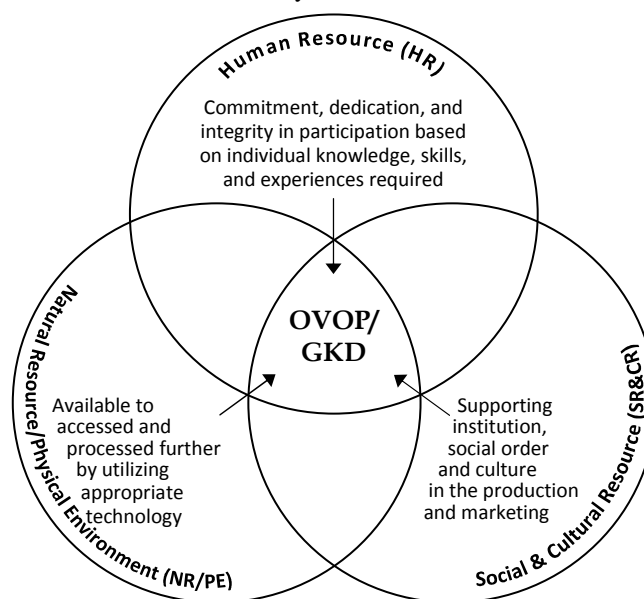


Figure 1. *Siparti 3-S* in OVOP/GKD Scheme
Source: Witjaksono (1997: 5 & 1998: 8)

Based on the observations and experience of the author as a consultant and researcher on empowerment of SMEs in East Java (since 1994), not every village has a complete three basic resources. For example, the village which may has a wooden, bamboo, and rattan craft industry centers, generally only has HR and SR&CR, while NR/PE is not available in the local village site - they come from other villages. Given these limitations, then the initial steps that must be doing in implementing *Siparti 3-S* is to assess the existing condition on how the intertwine three basic resources in the village. The results of the study presented in the form of a map of the potencies, capacity, and functional interrelations effective resources that directly contribute to the development of local competitive products. The results obtained in this first step will be the basis of the follow-up in the building of communication system, interaction, and networks, as Stenning & Koichi (2008) told about success stories of Oita's OVOP movement.

Siparti 3-S in strengthening local competitive products formulated briefly in Figure 2 below. Intersections [A], [B], and [C] as a crossing synergy between resources in Figure 2 should ideally be able to produce the following synergetic effects:

- [A]: Strengthening the capacity development of knowledge, skills, and technology literacy of HR related to system and process of NR/PE, in order to produce competitive products.
- [B]: Strengthening SR&CR in order to add to some degree of value to the local community economies.
- [C]: Strengthening the commitment and integrity of local communities (SR&CR) in the management and conservation of NR/PE as a common-pool resources to achieve sustainable economic and community development. (See basic assumption, theory, and practice of common-pool resources management in Ostrom, 1999a, 2002, and 2010).

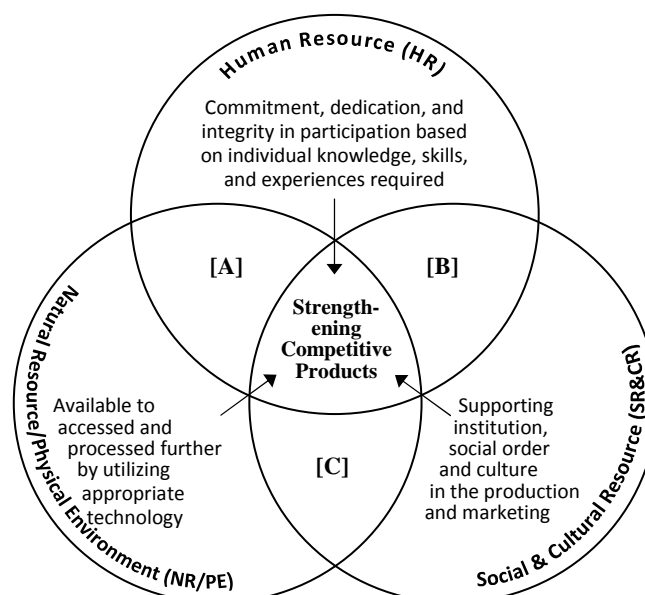


Figure 2. *Siparti 3-S* in Strengthening Local Competitive Products

Source: Witjaksono (1997: 7 & 1998: 10)

3. Synergy Government-University-Industry into Triple Helix

If the synergy *Siparti 3-S* is still internal to a particular location or industry (reaching-in), then the Triple Helix (TH) will be the external synergies (reaching-out) across three participants: local government, universities, and local industries. Basic concepts and principles of TH promoted by Henry Etzkowitz & Loet Leydesdorff (early 1990s) departed from the notion and practice of the industry innovation involving universities (research & development) and the government (policy development). The phenomenon of interactive and transactional relationships through TH became the paradigm of three-parties synergy nowadays has led to a global knowledge economy, both in developed and developing countries (Etzkowitz & Mello, 1994, Etzkowitz & Leydesdorff, 1997 & 2000, and Etzkowitz, 2002 & 2003).

The 10th International Conference on TH with the principal theme “Emerging Triple Helix Models for Developing Countries: From Conceptualization to Implementation” indicates that TH is getting important strategic position to strengthening SMEs in Indonesia.¹

When *Siparti 3-S* elaborated into TH (Figure 3) with the focus on strengthening local competitive products conceptually would be in the following collaboration forms:

[A]: Collaborative in various schemes in strengthening local HR, NR/PE, and SR&CR.

[B]: Collaborative R&D in capacity development of *Siparti 3-S* of local industry.

[C]: Collaborative in various programs to develop capacity of local industry in building sustainable and resilience economy.

The implementation of this conceptual framework requires three conditions, in which each party: (a) equal in position and role, (b) interdependent to achieve mutually beneficial for all, and (c) the results have an impact on increasing the capacity of all parties. In other words, strengthening local competitive products of small industry under the TH paradigm generates mutual benefits for all parties.

¹ Hosted by SMB-ITB, sponsored by the Ministry of Research & Technology and the Directorate General of Higher Education, Ministry of Education & Culture (Hotel Panghegar, Bandung, 8 to 10 August 2012). (<http://conference.uad.ac.id/the-triple-helix-10th-international-conference-2012-bandung>).

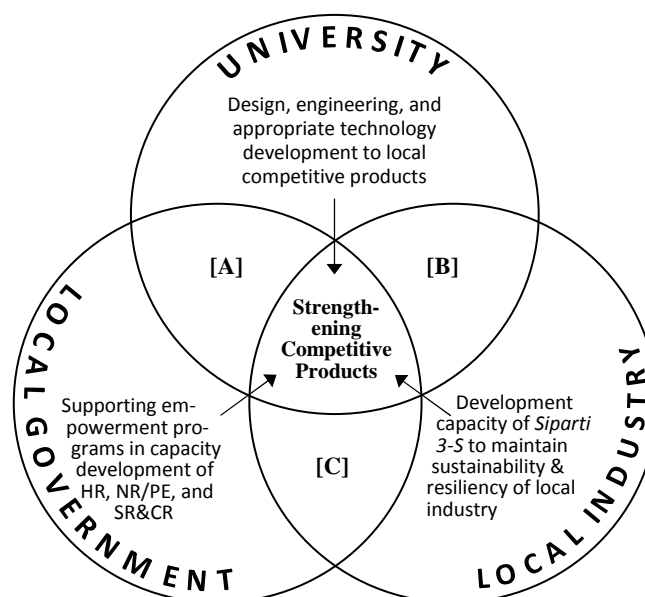


Figure 3. Siparti 3-S as Triple Helix in Strengthening Competitive Products

Source: slightly modified from Witjaksono (2012: 5)

4. Social Capital within Siparti 3-S and TH

SC in the context of *Siparti 3-S* and TH here is defined as structural and cognitive forms (Uphoff, 1999, and Grootaert & van Bastelaer, 2002), or the forms and contents (Valentinov, 2004: 7) of the interaction or the personal and business networks (Baker, 2000: 1-2 & 2001: 98). Structural forms of social capital can be networks, co-operatives, associations, groups, and other forms of social organizations. The content or cognition of social capital is the norms, values, trust, beliefs, and attitudes embedded in its structure (not separated) (Uphoff, 1999 and Valentinov, 2004).

Why the existence and role of SC are so important in *Siparti 3-S* and TH? According to the basic argument of economic sociology and institutional economics, all organization and economic activity in the "traditional society" and "modern industry society" is embedded in a social environment. The argument of "embeddedness", according to Polanyi (1944), Granovetter (1985 & 1992) and Barber (1995) indicates that economic activity in the organization does not develop in a "social vacuum", but the activity is influenced by: (a) socially constructed institutions, (b) the actors' personal relations, and (c) the relation the structure of the network of relations (see Ruuskanen, 2004: 3). Even, the multinational companies' networks operating in the global economy rooted in social relations and social institutions (Castells, 1996). In the context of social embeddedness, SC is important because it is able to explain how social embeddedness in economic actions affecting the economic performance of a country or society. Coleman (1998), Putnam, et al. (1993), and OECD (2001), for example, states that certain features that exist in a social organization, such as networks, norms, and trust can improve the efficiency of society performance by facilitating coordination of economic activities within and between groups (see also Fukuyama, 1995 & 1997, and Ruuskanen, 2004: 3-4).

In the context of collective action, SC is acting as the glue and lubricant of *Siparti 3-S* and TH. SC within the dynamics processes of *Siparti 3-S* and TH yield streams of benefits that make productive futures processes more efficient, more effective, more innovative, or simply expanded (Uphoff, 1999: 216). According to Anderson & Jack (2002), as cited in Rutten, et al. (2009: 3), SC may play a role in fulfilling two crucial functions: acts as both glue and a lubricant in social relations. SC is a glue in binding people together and a lubricant in making social interaction easier. In addition to the important role of SC as the glue and lubricant, Ostrom (1999b: 172) states:

Social capital is an essential complement to the concepts of natural, physical and human capital and can be used for beneficial or harmful ends - or simply be allowed to dissipate. While all forms of capital are essential for development, none of them are sufficient in and of themselves.

This statements above also confirmed by Wiles (2004: 20):

SC is like a lubricant that holds the other forms of capital together and keeps them moving-without it the other forms of capital cannot attain their full potential.

5. The Dynamics of *SILOW* & *ASPILOW* Development as the Reflection and manifestation of *Siparti 3-S*, *SC*, and *TH* in Strengthening Competitive Local Industry

The reflection and manifestation of *Siparti 3-S*, *SC*, and *TH* in strengthening competitive local industry described here based on the author' study on the dynamics of *SILOW* (Sentra Industri Logam Waru - Waru Metal Industry Center) in the Ngingas village, Waru district, Sidoarjo regency, East Java Province. (See *Appendix A*). Two main reasons of why *SILOW* is representative site to the existence and significant role of *Siparti 3-S*, *SC*, and *TH*. First, compare to other metal indutry center in Indonesia, *SILOW* has long history interms of dynamics growth, and the most revolutionary interms of technology and diversified products development. The dynamics growth spanned from just a single traditional blacksmith producing agricultural tools and equipment to diversified components for metal, machinery, and construction. The technology processing used change revolutionary from manual and simple machines to the deployment of high and precision technology. Second, *SILOW* had been chosen as one of the three samples by JICA for executing the pilot project "Strengthening the Capacity of SME Clusters in Indonesia" (2002-2003).¹ *SILOW* chosen, because it has the advantage based on the criteria of "opportunity growth factors" and the "planning and action-taking capacity". This national pilot project was the follow-up of the Japanese government mission to help the Indonesian government formulated in the "Outline of Tentative Recommendation for SME Promotion Policy in Indonesia" (Urata, 2000 and Schmitz, 2003: 12).

The establishment of *ASPILOW* (*Asosiasi Pengusaha Industri Logam Waru - Association of Waru Metal Industry Firms*) rooted from a long history of how the dynamics of *SILOW* development as the roadmap attached. *Siparti 3-S*, *SC*, and *TH* always exist and have significant role as reflected and manifested dynamically through the various social organizations and cooperative empowerment programs among the local industry, university, local government, and private foundation. (See *Appendix B*).

Based on the theory of "four distinct perspectives on social capital in economic development" (Woolcock & Narayan, 2000: 228-239), the manifestations of *Siparti 3-S*, *SC*, and *TH* are juxtaposed as Figure 4 and the following brief historical description.

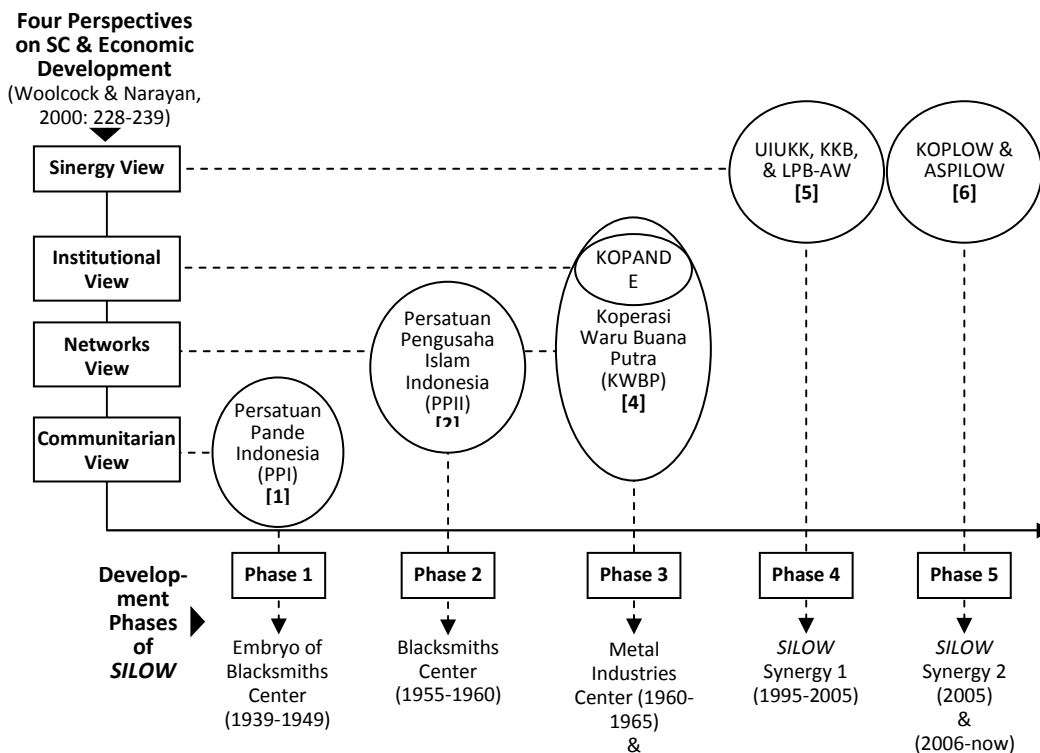


Figure 4. Juxtaposition of Four SC Views on the Dynamics of *SILOW* Development

Source: modified from Witjaksono (2008: 135, 2010: 273 & 2012: 7)

¹ The other two: Serenan Wooden Furniture Center (Klaten Regency) and Kebumen Roof-tile Center (Kebumen Regency), both located at East Java Province. (See JICA Final Report: *The Study on Strengthening Capacity of SME Clusters in Indonesia*. Final Report & Summary. Jakarta, March 2004a & 2004b).

Notes:

- [1]: PPI (Association of Blacksmiths Indonesia) - Founded by the "Triumvirate" (*Appendix B*)
- [2]: PPII (Association of Moslem Entrepreneurs Indonesia) - Founded by the "Triumvirate"
- [3]: KOPANDE (Blacksmiths Co-op) - Founded by Government
- [4]: KWBP (Waru Buana Putra Co-op) - Founded by *SILOW*
- [5]: UIUKK (Small Business & Co-Ops Information Unit) - Government's Facility
KKB (Business Consulting Clinic) - *SILOW* & Private Foundation (LPB-AW)
LPB (Institute for Business Development) - *SILOW* & University's Facility (LPPM-ITS)
- [6]: KOPLOW (Group of Waru Metal Industry Firms) - Founded by the "7 Pioneers"
ASPILOW - Founded by the "Forum 7", and specifically by the "Three Pioneers of *SILOW*", i.e. PT. Atak Otomotif Indometal, PT. Arto Metal International, and CV. Iskasari Jaya (*Appendix B*)

Phase 1 conforms to *communitarian perspective*, since the background of formation PPI was to "bind" more blacksmiths around Waru district not only just for doing business (economic motives), but also "*syiar of Islam*" to eliminate the "bad habits - which were prohibited in Islam" among majority of the village peasants.

Phase 2 conforms to *network perspective*, because along with the more powerful "*syiar of Islam*" Abdul Kadir (as the triumvirate leader) took an initiative to tie the PPI into a network by the establishment of PPII. This new organization was an association of moslem blacksmiths and moslem entrepreneurs, the members were spread out in East Java Province. However, under the political circumstances (i.e. the first General Election in 1955), government began to "intervene" by enforcing the center to build a co-operative institution (KOPANDE) in which its members were notably all the blacksmiths of PPI. Under the propaganda of KOPANDE, soon the Village of Ngingas renowned as the center of blacksmiths in Waru district (SPBW).

If in the previous two phases the existence and role of social capital determining the development hub, then with KOPANDE initiated by government, its position changed. According to the classification of the Woolcock & Narayan (2000), phase 3 included in the *institutional perspective*. The presence and the role of social capital depend on the capacity agency that was formed due to the political circumstances of the state (KOPANDE). The situation and the political conditions were not conducive to KOPANDE and the sustainability of the center. Although the government gave directions and facilities in the form of "jobs-order for the production of agricultural tools required the government", with the outbreak of "G-30-S PKI", KOPANDE finally disbanded. However, with the efforts leading by the two sons and successors of Abdul Kadir (Ahmad Toyib w/CV. Atak, and Abbas w/CV. Sabaru), and followed by two other pioneers of metal industry development at the center (i.e. Artono w/CV. Arto Metal, and Imam Syafi'i w/CV. Iskasari jaya), then gradually Waru Metal Industry Center (*SILOW*) developed. One of monumental achievement during this phase was the establishment of Waru Buana Putra Co-op (KWBP) in 1978, and under Abbas' leadership, *SILOW* received "National Upakarti Award" from the President of the Republic of Indonesia in 1989.

Phases 4 and 5 are essentially entered into the category *perspective of synergy*. This synergy generated from the unifying networks and institutions as shown on the *Appendix B* (dotted arrow-end lines). Firstly, KWBP collaboratively working with UIUKK in supporting technical facilities needed by the members of KWBP. Secondly, KWBP collaboratively working with KKB-Astra Waru (then changed to LPB-Astra Waru) in supporting managerial and operational skills of the KWBP members. Thirdly, LBP-Astra Waru together with *KOPLOW* (a group consist of 17 metal industry firms at *SILOW*) set out a consensus to establish *ASPILOW*. In phase 5 the existence and role of *Siparti 3-S* getting stronger with the solid supporting of SC, and the role of government Sidoarjo Regency through TH scheme successfully established *ASPILOW*. One example of the effect of TH is in phase 4 was the technical assistance provided by LPPM-ITS when PT. Atak Automotive Indo Metal having a problem with technology for hardening steel plate (see the story manager of LPB-AW told to *KOMPAS-CyberMedia*, April 2, 2004, under headline "*Ngingas Components Industry is Under Crisis, but Still Going Strong.*"). The synergy involving *ASPILOW*-PT.Sapta, LPPM-ITS-LPB-AW, and Government of Sidoarjo Regency-PT. SM into PT. DMN is the manifestation of "hybrid of a trilateral organizations" TH (Etzkowitz, 2002, 2003, 2007, Leydersdorff & van Basselaar, 1997, and Saiki & Jordan, 2007) as follows ...

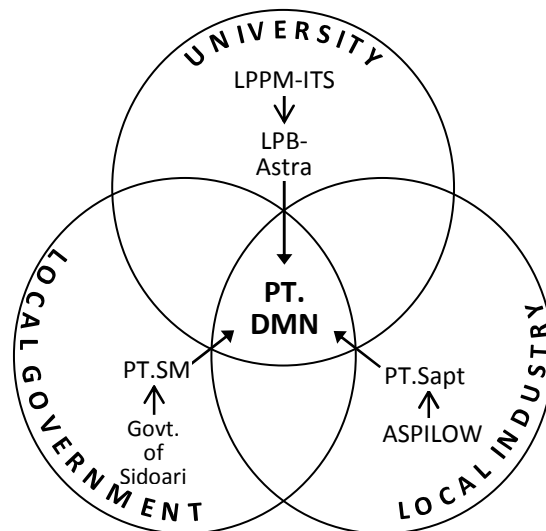


Figure 5. PT. DMN as Manifestation of TH in Hybrid of a Trilateral Organizations
 Source: Witjaksono (2008: 160 & 2010: 281)

ASPILOW driven by the "Forum 7" asking an hearings with the Regent and the House of Representative of Sidoarjo Regency to gain positive response to the investment plan proposed by *ASPILOW*. The investment plan proposed by *ASPILOW* is about getting financial support from the government to build a "Dies Center". The government and House of Representative gave agreement to support *ASPILOW*'s investment plan under the condition that *ASPILOW* should have a special unit to carry out the Dies Center as a business-for-profit. Due to the regulation prohibit *ASPILOW* as an association to run a business-for-profit, then *ASPILOW* set up a limited partnership/company called PT. Sapt (Sapta = seven, represents forum 7). Through PT. Sapt, *ASPILOW* offer a proposal of joint-venture capital to the Government of Sidoarjo Regency (as the continuation of previous hearings). Proposal prepared *ASPILOW* includes four things: (a) the pattern of cooperation, (b) the focus of the program services to members of *ASPILOW*, (c) the form of investment and a "sharing" of each party, and (d) the organization and management of business Dies Center. The total value of the investment was IDR2,000,000,000 (two billion rupiahs). After assessing and appraising thoroughly the proposal, finally the Government of Sidoarjo Regency and *ASPILOW* agreed upon the following scheme:

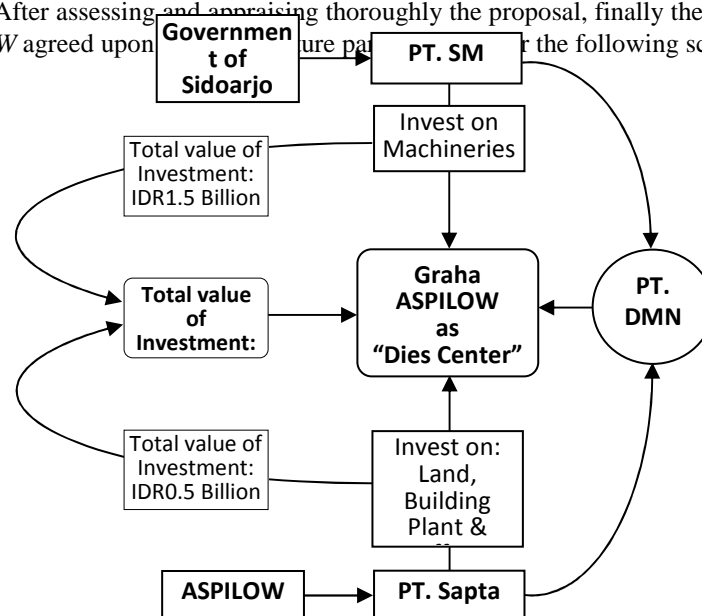


Figure 6. Joint-venture Synergy: *ASPILOW* & Government of Sidoarjo Regency
 Source: slightly modified from Witjaksono (2008: 97 and 2012: 8)

In terms of investment, the Government of Sidoarjo Regency through PT. SM and *ASPILOW* through PT. Sapta agreed that the shared composition is 75%-25%. It means that the share of PT. SM is 75% of the total value of investment (IDR1,5 Billion), and the share of PT. Sapta is 25% of the total value of investment (IDR0,5 Billion). PT. DMN, as a joint management form between PT. SM and PT. Sapta, is one who runs the business of Dies Center.

Graha ASPILOW is located at Jl. Kol. Sugiono 59, North Ngingas, Waru district, Sidoarjo regency, as shown on the **Appendix A**. The development and installment Dies Center inside *Graha ASPILOW* completed in 2007. The main machineries and equipments invest on the Dies Center of *Graha ASPILOW* are: (a) EDM Wire Cut, (b) Surface Grinder, and (c) Steel Hardness Measurement Instrument. The full services and operation of all machines and peripherals provide by Dies Center starting at October 2007. With the operation of high-tech services and facilities cheaper than other places, *ASPILOW* mission in helping firms in *SILOW*, at least partially fulfilled. Location *ASPILOW* that is close to the service users, making more efficient.

The very first successful program achieved by *ASPILOW* was the obtaining of IDR82,150,000 over a six-period from February 2007 to August 2008 from SENADA's Business Innovation Fund (BIF).¹ This grant awarded when the Director of PT. Atak Otomotive Indo Metal (Miftakul Ulum), as *ASPILOW* member, sending a proposal to SENADA to help local tractor tire producers gain access to better technology for making tractor tire frames. The grant awarded used to construct a roll machine that would allow the frames to be made with greater quality control and economies of scale. The purpose of the roll machine is to roll metal rods into the circular frames used to produce tractor tires. The main reason that ... *most SMEs in Ngingas have been using manual tools to produce tractor tire frames, resulting in uneven quality, slow production that consumes a large amount of manpower (it takes four operators to make 80 frames/day manually, compared to a demand base of almost 400 frames/day), and difficulty in achieving the necessary degree of precision for dimensions and smoothness.* (Cited from SENADA's BIF Grantee Profile 007e - October 2008).

What is the main driving factor that motivated all actors in the *SILOW* as well as *ASPILOW* development? This question related to the two of five propositions asserted by Witjaksono (2008: 164-166) after thoroughly examined the role and contribution of the so-called pioneers of *SILOW* and *ASPILOW* development. The first proposition is that the presence and role of social capital influenced by the historical and leadership roles of the pioneers figures in the development of *SILOW*. The second proposition is that the higher initiative guided by the spirit of mutually beneficial collective action taken by the business leaders, the more powerful and dynamic the presence and role of social capital in the development of *SILOW*. The leadership role of the pioneers (whether the "triumvirate", "Forum 7", and "3 pioneers" as already mentioned) always taking initiative and having high spirit to make *SILOW* better beyond the advantage of using technology. The second proposition is that in realizing the first proposition, all actors have common understanding that only by mutually beneficial collective action the mission to grow *SILOW* competitively will achieved. The phenomenon of synergistic collective action motivated by mutually benefit for all participants according to Uphoff & Krishna (Uphoff, 1999, Krishna & Uphoff, 1999 and Uphoff, 2003) is the manifestation of SC. Uphoff (1999 & 2003) claimed that the only MBCA (Mutually Beneficial Collective Action) is ultimately be the driving factor in all kind of synergistic cooperation among difference actors and institutions. However, the phenomenon in the MBCA and collective efficiency had not been included in the collective action theory pioneered by Mancur Olson (1965) and Russell Hardin (1982). Characteristics of collective action and collective efficiency under the MBCA theory according to Elinor Ostrom & T.K. Ahn (2007) covered in the second-generation of collective action theory. Both authors categorized Olson and Hardin's collective action theory as the first-generation theory of collective action, as explicitly stated as follows:

At the core of the first - generation theories of collective action is an image of atomized, selfish, and fully rational individuals. In the field, individuals do not live in an atomized world. Many collective-action problems are embedded in preexisting networks, organization, or other ongoing relationships among individuals. (Ostrom & Ahn, 2007: 6).

¹ SENADA is a four-year, USAID-financed project whose goal is to increase Indonesia's economic growth and employment by improving the competitiveness of major, labor-intensive light manufacturing industries. The Business Innovation Fund (BIF) is an initiative launched in June, 2007 by SENADA. BIF offers short-term, high impact grants to develop innovative products and services for SENADA's focus value chains. Details can be found at www.senada.or.id/innovation.

The last sentence cited above precisely describes the circumstances behind the birth of *ASPILOW*, so it is justified when the MBCA and collective efficiency becomes a reflection of the second-generation theory of collective action.

6. Conclusion

Siparti 3-S as a paradigm in synergizing all resources and efforts to strengthen local competitive industries would be effective whenever the principles and conditions aforementioned fulfilled. The challenges, problems facing during, and implementation *Siparti 3-S* mostly comes from and by the leaders of the industry themselves. Efforts to raise awareness in the *SILOW* community towards the importance of MBCA as synergistic participatory in strengthening local competitive products have not run smoothly. The struggling of *SILOW*'s pioneers to succeed in establishing *ASPILOW*, for example, was not escaped from the problems of vested interest and free riding. Forum 7 was formerly consisting of 20 members. Since most of the members tend to expect the results within a short time and avoid sacrificing some amount of money, eventually only 7 members stayed.

The Forum 7 as the pioneers of *ASPILOW* establishment, according to Witjaksono identification (2008) does have awareness, commitment, and vision of advancing *SILOW*. These were the ones on various occasions related to efforts to strengthen local competitive products in *SILOW* by self-consciousness already apply the theory of collective action and collective efficiency, to achieve the MBCA. Hence, in the frame of *Siparti 3-S* it has always been bonded and lubricated by SC.

The early TH phenomenon was started in Phase 3 when *SILOW* represented KWBP expanding communication networks and interaction through partnership with UIUKK (government) and the ITS-LP2M, although it was limited to the completion of an order from the government. Starting Phase 4 and 5 the synergistic participatory fully accomplished into a solid TH. Solidity is marked by the success of all three-parties in the establishment of PT. DMN and with real investment in *Graha ASPILOW*.

Facing the challenges and opportunities of strengthening local competitive industries in Indonesia in the coming years would not be an exaggeration to conclude here that through the application of *Siparti 3-S* paradigm developed further in the format and scheme of TH, and while maintaining the existence and the role of SC, surely all challenges can be overcome.

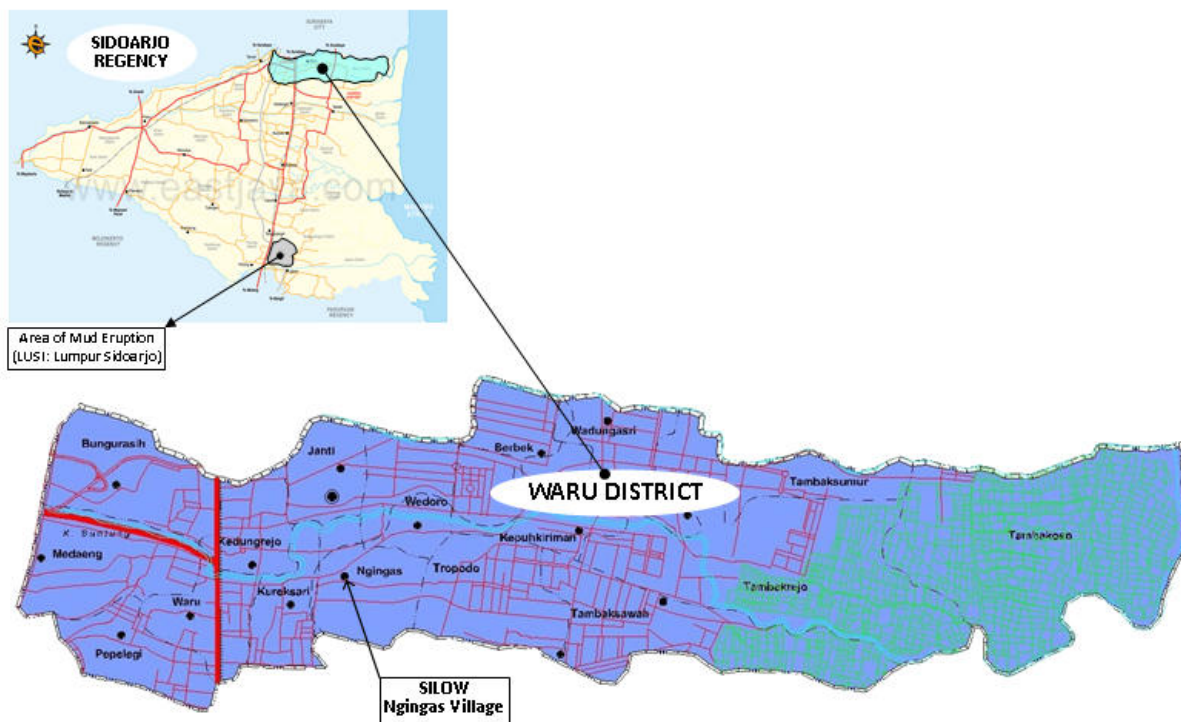
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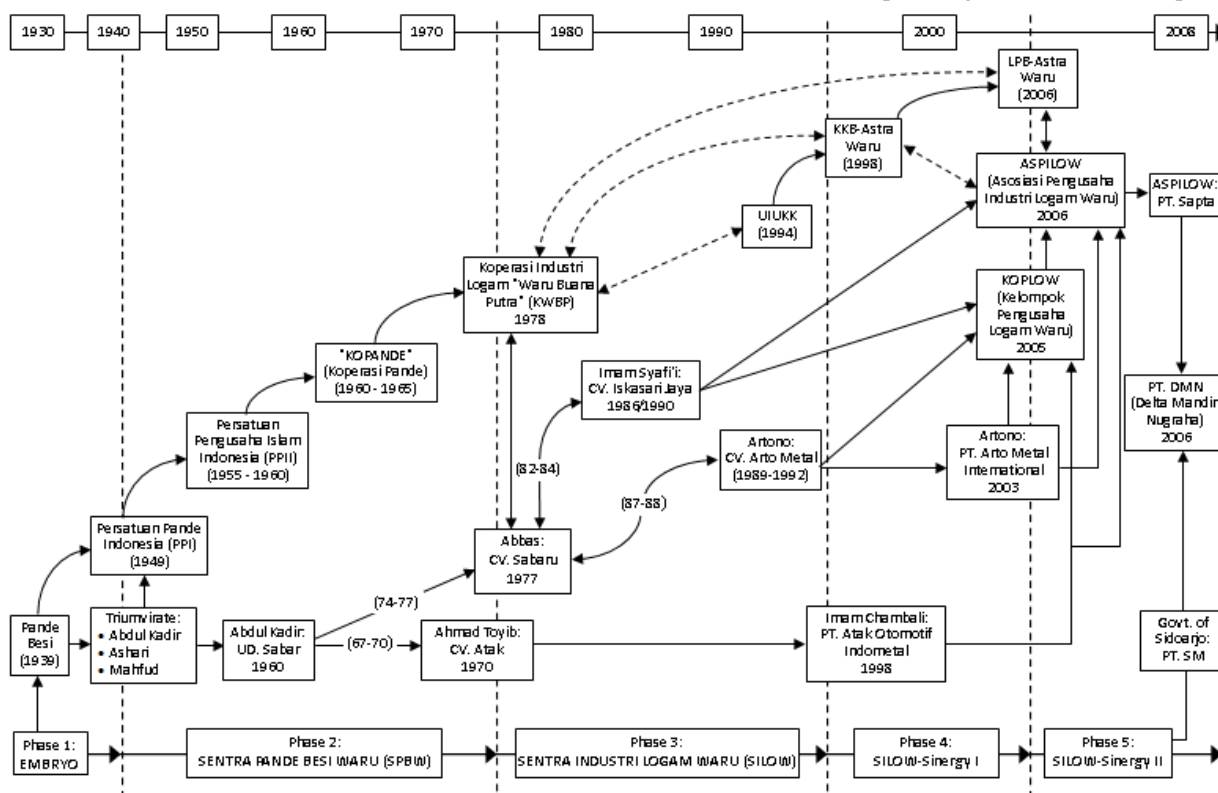
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Appendix A:
 Map of Sidoarjo Regency, Waru District & SILOW Location



Appendix B:

The Roadmap of the Dynamics of SILOW Development



Source: slightly modified from Witjalsono (2008: 100, 2010: 29 & 2012: Appendix)