

## **Empowerment the Institutional Milk Cooperation Using Soft Systems Methodology**

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### **ABSTRACT**

An important sector which plays a major contribution in Indonesia's economy is the agricultural sector. The agricultural sector as an agribusiness system, placing livestock sub-sector as promising sector which have a huge potential for development. The development of the livestock sector in Indonesia cannot be separated from empowering dairy business. Cooperative was established to improve the ability that has weak economy abilities, including small-scale dairy farmers. The small-scale production scale put the farmers at a disadvantage and weak bargaining position.

This study uses the Soft Systems Methodology application to analysis the relationship between dairy business which is not just limited to government policy issues but also the development and activities of milk farmers. Cooperatives placed itself as a mediator between farmers and milk processing industry especially in marketing issues, but cooperatives are still having problems to maximize their function.

This paper contributes to the improvement of business network and adaptation of contract farming which is expected to change the dairy cooperative governance structure into enterprises which are more competitive and promote the welfare of its members as a form of empowerment the dairy farmers. This effort is also expected to strengthen the partnership between farmers, dairy cooperatives and milk processing industry as a partner to develop the national dairy business.

**Keywords:** dairy cooperatives, business network, contract farming, Soft Systems Methodology

### **Picture of Dairy Cattle Farming**

The supply for milk was contributed about 95 per cent by dairy cows, and the need for increasing the consumption of cow's milk increased both in the world and Indonesia. This is caused by the rising incomes, population, lifestyle changes, public consumption, awareness of nutritional needs in order to improve the quality of health and quality of human resources.

The potential of a growing market, made the dairy farming a prospective business. But now days local farmers are not been able to support the dairy processing industry (IPS) raw material needs. Currently domestic milk production can only supply about 30 percent of the national demand and the remaining 70 percent comes from imported milk. The high imports of dairy products cause the

loss of the opportunity to improve the welfare of dairy farmers and dairy agribusiness development.

To produce high quality milk in large quantities is not easy, and these become a problem for dairy farms. Dairy farm in Indonesia is generally a rural family business in a small scale, whereas large-scale enterprises is still very limited, and is generally a new dairy business grow. Composition of dairy farmers is estimated to consist of 80 percent of small farmers with holdings of less than four dairy cows' tails, 17 percent of dairy farmers with ownership of four to seven cows, and three percent ownership of dairy cows more than seven cows.

In fact dairy farm business has two major problems, namely the zooteknik problems in the face of global market and socio-economic issues to support the business performance. Both aspects are inter-related like a vicious cycle which made the development of farm people stagnant in the last twenty years. The problems faced by farmers internally regarding technical issues, small land area, and the low resource farmers, whereas external variables such as government policy and institutional organization that ensures the production incentive for the business growth in the level of members (dairy farmers) and at the level of the cooperative.

The ability of farmers cultivating particular problems concerning the handling of livestock health problems and quality breeding stock is still very low which is influence the quality and quantity of milk. Other problems are the limited land forage for livestock feed and high prices of food concentrate. The government should have awareness to these issues, countries such as Australia's dairy producers has provides a vast land to meet the needs of forage for livestock in areas of milk production centers.

Most farms in Indonesia, especially the dairy farm business is hereditary and is a source of family income. Empowering the people's dairy farm required more effort from the government like to renew the farm management system in developing animal husbandry in accordance with current technological developments.

There is a lot of fear and pessimism between dairy farmers in trying new things or new technology. The government doesn't only have to change their way of farming but also the mindset of the farmers. One effort to change mindsets and patterns of their breed is the approach followed by the values and patterns of livestock management that has been embedded in those acts form a pattern and its own system of human activity.

Another aspect of the success of dairy farms depends is an effective management of marketing. Efficient marketing system results a higher sales which will affect the decision of producers to invest in the economic activity. An efficient marketing system also helps bring quality products to consumers at the lowest cost possible. (Debnarayan Sarker, Bikash Kumar Ghosh, 2010).

### **Farmers Cooperative Dairy**

The history of the dairy cooperative movement in the world, especially cooperatives engaged in the agricultural sector, shows that dairy cooperative are successfully examples in most countries where dairy cooperatives are the best and biggest cooperative. Dairy farm has different characteristics with other agricultural enterprises because there are usually agglomerations in every region

or environment. The agglomeration system spawned a variety of related activities both in the support system and outlets which related the farmer's interests collectively. This allows cooperatives to grow sturdy compared to other cooperative organizations in the economic field. The real reason was able to explain further to see the potential of dairy cooperatives in Indonesia to bring the life of a dairy farm to bring prosperity to the community in line with the mission of the national economy.

Indonesia began developing dairy agribusiness in 1977 which was marked by joint decree (SKB) between 3 ministers. SKB formulated policies for the dairy agribusiness development in Indonesia. At least two important agribusiness policies were made, first developing dairy cooperatives and second milk marketing was cooperation between dairy cooperatives and IPS. Cooperative organization is one of the containers that are directly related to the development of dairy farm business, and most of Indonesia's dairy farmers joined the cooperative dairy.

Agribusiness system on commodities of fresh milk adopts vertical cooperation in Indonesia. Distribution the milk flows from farmers to cooperative and distributed directly to the IPS. Most of the production of fresh milk produced from the farm folk, while the cooperative collected, provided the production inputs, and distributed the milk to the IPS. This system is known as the cluster system.

Cooperatives or dairy cooperatives had their golden era on the importation of dairy cattle on a large scale between the years 1980 - 1990's, has now reduced its role as even less likely to be trusted members. Competition among cooperatives and bargaining power of dairy farmers was an indication of the inability of weak dairy cooperatives to control the dairy business in the era of the free market. Since the Indonesian Association of Dairy Cooperatives (GKSI) formed in the late 1970s until now, the productivity of dairy cows farmers was still low. The condition of livestock due to business management, feed and seed quality beef available was not adequate. Improving the management of farm people is a fairly complex problem, not only change the attitude of farmers but also how to provide good seed stock and quality of feed raw materials in quantities to meet the needs. The impact is seen in the lack of effort and poor quality milk production. All of them as a result of traditional business management system, so that the milk price formed at the farmer level is low.

The linkage between the cooperative milk dairy farm businesses is not only limited to historical factors in terms of government policy as an element of business development dairy cows, but also the cooperative position as a mediator between the farmers and the IPS. The close relationship between dairy cooperatives by farmers plays a strategic role of cooperatives in the dairy farm business development. However, many cooperatives that are not been able to carry out its functions optimally which has resulted in helplessness farm.

The important role of cooperatives acts as a buffer between the farmer and the IPS. The main purpose of the cooperative is to protect the interests of farmers through increased milk prices. Cooperative is an organization that is used by farmers to improve their welfare. Where the cooperative is responsible for providing supplies of production inputs in the form of concentrates, artificial insemination, and also accommodate milk from farmers to sell to the IPS. Here,

the role of cooperatives is needed by farmers to assist them to improve their competitiveness in the face of imported fresh milk products.

As an institution that manages the dairy from farmers and distribute it to IPS as well as representatives of farmers in fighting for the aspirations of farmers, cooperatives have a strategic role to support the development of dairying in Indonesia. Development of dairy cooperatives depends on the mechanisms involved in the cooperative.

Cooperatives should be able to run good governance to continue to maintain the survival of the cooperative itself. Forms of governance should be able to cover all aspects that affect the lives of the cooperatives themselves in terms of management, human resources of cooperative management, and how to sustain the life of a cooperative farm members as a form of cooperative sustain life itself. This effort is a problem, especially in maintaining the survival of farms. Empowering the dairy cooperative must be carried out in an effort to maximize the great potential to develop the dairy farm businesses which will have an impact on national milk production, increasing both in quality and quantity so as not to lose to compete with imported milk.

### **Governance and Institutional Milk Cooperation Problems**

The majority of dairy farmers in Indonesia are members of dairy cooperatives and the fate of pocket marketing their milk production in dairy cooperatives. The milk cooperative in Indonesia is an organization that acts as a mediator between farmers with dairy processing industry (IPS). Dairy cooperatives should be an institution that has an important role in determining the bargaining position of farmers in determining the amount of milk sales, the timing of sales and selling prices received by farmers. This role must be maintained and maximized by the cooperative as a business opportunity, in order to increase services provided by cooperatives.

The improvement efforts of service should be accompanied with efforts to improve the quality of human resources as well cooperative management, efforts to strengthen networking with milk processing industries and industries related to the availability of concentrate feed, seeds and animal health care. Strengthening the cooperative institutions can be done by adapting institutional approach based on contract farming. It seeks to achieve institutional governance systems and institutions that promote partnerships between farmers and dairy processing industry is mediated by the cooperative, so cooperatives can improve services for farmers and raise their welfare.

The fact that domestic milk production is only able to supply 30 percent of domestic needs of fresh milk is a great opportunity for dairy farmers to develop farm business. Dairy development efforts would be more effective if farmer's especially small farmers get help in the form of technical assistance and capital of the cooperative.

Major problem the farmers have in developing their farm is related with a lower the ability cultivation of especially regarding health of livestock and quality of cows which is still low. This result the slow growth of milk production and affects the quality of milk produced. Another problem is the lack of grass for cattle, the high cost of transportation, etc. These problems may not be solved only by farmers or cooperatives themselves, there must be support from the

government to resolve the issue. like synergistic government policy in the livestock feed and cows quality to get an affordable price. Also government could provide clear rules and strengthening cooperative development issues through institutional adaptation contract farming to forming partnerships that can develop dairy farm business with good management.

Another problem for farmers was the Presidential Instruction No. 4 in 1998 which regulates the milk market milk. In this regulation the position of dairy processing industry became more powerful than the breeder, because the milk processing industry (IPS) had the option to get the raw material needed is fresh milk from domestic and imported. Consequently fresh milk price received by farmers became lower and sometimes was not on par with their production costs. Cooperatives also did not have the bargaining power to participate in determining the selling price of milk for dairy farmers. As the official sanctioning body of the farmers, cooperatives could only provide services that can assist and alleviate the issues around the management of farms and production costs continue to rise. This needs to be done to sustain the cooperative itself, because survival depends on the amount of milk production of cooperative breeders.

The development of agribusiness in other countries the role of dairy cooperatives in the livestock business is enormous, especially in the business development issues. We can see examples in the country of India and Uruguay where domestic farmers have been able to produce 90 percent of the total national milk production; it is the role of cooperatives in the development of animal husbandry in their country. The major roles of dairy cooperatives are not met in the dairy cooperatives in Indonesia. Our dairy cooperatives have a very weak bargaining position when dealing with the dairy processing industry, both in number of sales and the price of milk.

Other important issue the dairy cooperative faces is relatively large government intervention in regulating organizational. The process of the formation of cooperatives also dairy cooperatives are falling because most their members are not able to produce fresh milk and sustain maximum production. Also they are tempted to sell their dairy cows by reason of the increasing cost of production and milk prices are so low that they can't meet their basic needs.

The formation of cooperatives have to ensure that every function and every component of the cooperative must be going well, especially supervisors must conduct an evaluation and monitoring of the performance of the cooperative management of cooperatives, especially in managing and providing services for members. The creation of cooperatives have to accordance the principles and benefits of the cooperative to increase the welfare of its members. With strong institutional level dairy farmers, the government is expected to provide maximum support for the advancement of dairy cooperatives in improving the welfare of its members to sustain and expand outreach efforts dairy cooperative effort.

### **Empowerment the Institutional Cooperative Milk**

As previously discussed the key issues that cooperatives facing is the poor quality of cooperative institutions, the level of skills and professionalism of human resources in the cooperative provide optimum service to its members. To overcome this problem it is required to strengthen the cooperative institutional. Cooperative institution must be managed as a business professional with an

effective and efficient management. Cooperative management system should lead to a progressive system of participative management. Where there should be a cooperative management in togetherness, openness, and apply appropriate social conditions.

To discuss institutional strengthening, we have to discuss about the institution itself. Institutional according to Schmid (1972) is a system of organization and control over resources and systems as an opportunity for individuals to make decisions and carry out their activities. Institutional economics adherents believe that a multidisciplinary approach is essential to capture the economic problems, such as social, legal, political, cultural, and the other as a unit of analysis (Yustika, 2008).

New Institutional Economic models have two kinds of approaches, the first approach in the know with the new economic history which was introduced by the North, Fogel and Rutherford and the flow of public choice (public school choice) that was introduced by Buchanan, Tullock, Bates and Olson . The second is the transaction cost approach to economic theory (transaction cost economics) which was introduced by Coase, Williamson and North and economic information (information economics) introduced by Akerlof, Stigler and Stiglitz

North defines institutions as constraints to form a pattern of a harmonious interaction between the individuals in the interaction of political, social and economic. While Schotter (1981) suggested that a regulatory institutions on human behaviour is a form of community agreements in order to form interaction in the ever-recurring patterns of situation. (C.Menard and M.Shirley, 2005).

Process of institutional strengthening dairy cooperatives in Indonesia is not only related to internal issues contained in the cooperative but also be related to the reconstruction of shape government policy. The policies related to the development of co-operatives must include a process of strengthening and development of dairy cooperatives as a whole. This policy should be concerned with how the defence of government to farmers and agribusiness systems including national dairy farm can be integrated in the form of regulation both at central and regional levels.

This means that should the scheme macro policies (both monetary and fiscal) are closely associated with the development of the national dairy farm and micro policies related to technology transfer and research to fully involve cooperatives as institutions linking mediator between farmers and the dairy processing industry. With the strengthening of cooperatives supported by the policy of cooperative, cooperative is expected to have a higher bargaining power in determining the selling price, the amount and timing of absorption of milk production of dairy farmers to the processing industry (IPS).

The long journey of milk cooperatives in Indonesia is dynamic, but gets less attention. One and other reasons, dairy cooperatives in Indonesia was stopped growing during the past 20 years, since the history of cooperative dairy development past a very top-down actually deadly spirit and ideals of the founding cooperatives themselves. This top-down system has the capability to make the cooperative innovation, initiative and self-empowerment in developing their business reach and sustain cooperative life itself. Strengthening of institutional dairy cooperatives should be carried out by following the changing times, and the ability to prioritize competitive in their business development

efforts to promote improved quality of human resources is reinforced by policies that encourage the advancement of cooperative governance itself. Strengthening of institutional dairy cooperative effort itself must be linked to social and institutional capital as the source of the inherent power of everyday life most of the Indonesian people.

Other process that must be considered is how the institutional position of dairy cooperatives in the agribusiness systems dairy farm now. Improving the image and revitalization in the institutional form of dairy cooperatives in cooperative efforts can strengthen institutional competitiveness in the future. There was no denying the impact of the low quantity and quality of human resources in the dairy cooperatives in Indonesia resulted in a lack of management skills, infrastructure and technology, and less smooth absorption of information, which makes the ability limited and make cooperative more difficult to have bargaining power and good competitiveness.

Institutional strengthening dairy cooperatives can be done by setting up a dairy cooperative to form a new generation cooperatives in line with Keith Woodford (2003) who argues that the new generation cooperative is a cooperative that is structured to overcome the limitations of conventional cooperative governance in relation to capital, distribution of profits from capital owned, income problems faced by the members as well as those who supply goods or receiving services from the cooperative and cooperative governance also consider the presence of non-member investors separately. Basically the main problem faced by a new generation cooperatives related to how capital should be obtained so that cooperatives can function more efficiently organize incentive system of capital and vertically integrate the supply chain cooperative production of goods.

One form of institutional strengthening process that can be taken by the dairy cooperatives in Indonesia is through the establishment of institutional strengthening the institutional contract farming as a form of fair partnership and can improve the welfare of dairy farmers. Contract Farming is generally regarded as a binding form of application of the rules between the two parties consisting of agricultural companies (contractors) with individual farmers (Catelo and Costales, 2011). The design of institutions considers the use of market access facility, with the input and output markets collectively, backed by the government and the private sector (Jabber et al., 2007).

Contract farming in the fields of animal husbandry is the cooperation between the two parties which breeders with well established if the mutual interdependence, reducing the burden of risk that had only borne by the farmers. They have the assurance that the products they produce will be purchased. In the long run they also benefit the future partnership opportunities and access to government programs. Establishment of contract farming in the dairy farm business will be more easily implemented if the parties were included to represent the farmers individually is better represented by a dairy cooperative because the cooperative is the intermediary to absorb milk production before they were distributed to the farmers IPS.

With the arrangement through contract farming, farmers often have to accept the price risk because of the national dairy marketing system as the recipient of the price (price taker). Marketing that is guaranteed by contract can reduce transportation costs and no other charges in the marketing problem. It

would be more effective if marketing arrangements are managed by cooperatives and given protection so that the selling price of milk cooperatives guaranteed and can provide more optimal for the farmers so as to bring prosperity to the farmers.

### The Use Soft Systems Methodology

This study aims to gain an understanding of how the ideal form of institutional strengthening through the eyes of a cooperative dairy farmers and cooperative components to know clearly where the problems encountered in the development of dairy production in order to maintain business continuity cooperative, competitive and able to advance the national dairy business, which in turn can bring prosperity to the farmers.

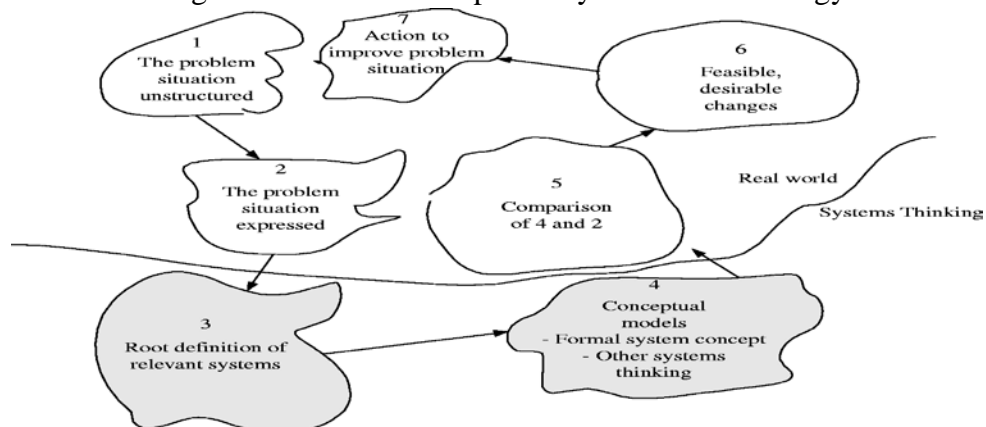
To answer the purposes of this study the researcher used the method of soft systems methodology (SSM) is an approach to solving a complex problem situation unstructured analysis based on holistic and systems thinking. SSM also is a participatory methodology that can help the different stakeholders to understand the perspective of each stakeholder. SSM focus is to create a system activity and human relationships within an organization or group in order to achieve common goals. (Checkland and Scholes, 1990, Soft Systems Methodology in Action).

SSM basic set of thinking that if a person's participation in a process of finding a problem situation and how to fix it, then that person would prefer to understand the expected improvements, was having these problems, and commit to change.

SSM is a suitable methodology to assist organizations in clarifying their goals and then plan human activity system in achieving its objectives. SSM methodology is based on the 7 stages of the business process that began clarifying the problem situation unstructured human activity into the expected system (Checkland in Jackson, 2000).

SSM methodology using systems thinking (systems thinking) is to understand the phenomenon that occurs with the use of modelling language. Checkland methodology essence can be described as a seven-step process analysis system using the concept of human activity as a means of 'finding out' about the situation to 'taking action' to improve the situation. The process can be described as shown below.

Figure 1. The Seven Step Soft Systems Methodology



Source : Checkland (1999)



Step 1 and step 2 is to figure out the situation which will be observed. Stage one is the stage to capture unstructured situations through the perception of the actors involved. In this phase has been determined that the actors involved in the study, in which each actor representing their role in the observed real world (referring to the problematic situation Considered problematic) in the study. The selected actor is an actor who represents Clients (C), Problem Solver (Practitioner-PS), Problem Owner (PO).

Stages two are structuring unstructured reality in stages 1 through making Rich Picture of real world needed to build Root Definition (RD). Rich Pictures are used for the identification of the real situation (culture, social, and political analysis) are considered essential before making the model.

Stage Three is to build Root Definition (RD) that is relevant to the system. Root definition is a structured description of a system of human activities that are relevant to the problematic situation of concern in the SSM which always emphasized the relevant system. (Hardjosoekarto, 2012). In the manufacture of Root Definitions of Relevant Systems we relate the problem to the existing system, which is followed by creating root definitions that explain the process of transformation to achieve the goals (To do P, by Q, to Achieve R) (Checkland and Poulter, 2006). The purpose of this root definition is to find what will be done, who is carrying out, who gets the profit or loss of the problems that exist and what the environmental influences that limit the actions and activities. (Flood and Jackson, 1991)

To test the root definition is done by doing CATWOE analysis. CATWOE used to identify the stakeholders involved, transformation, weltanschauung (point of view), and later build environments for human activity system definition needed to fix the problem situation. Any action CATWOE consists of:

1. C (customer) are people who expect to benefit from the actions taken.
2. A (actor) is an actor who does action.
3. T (transformation process) is that there is a change of input to get to a better direction.
4. W (weltanschauung) is a form of action which is ideal for the face and look into the subject.
5. O (owner) is an actor who can stop the action.
6. E (environmental constraints) is that there are obstacles in the environment act.

Transformation process must comply with the assessment criteria:

1. Efficacy: Criteria to say whether the transformation T works, in sense to produce intended results.
2. Efficiency: Criteria to tell whether this transformation is achieved by the use of minimum resources.
3. Effectiveness: Criteria to tell whether this transformation is help achieve a higher level or long term. (Checkland PB, Poulter J, 2006)

Stage four is made and tested a conceptual model of conceptual models. According to Checkland (1991) conceptual model is a model that describes the activities of the system, in which the element is a verb. The activity is based on the root definition and structure of the verb refers to the basic logic. Wilson (2001) adds that any model that is relevant to real-world situations (real world), but the model is not representative of the situation. If the substance of the root

definition associated with the system, then the conceptual model relates to what should be done by the system.

Stage five was a comparison between the conceptual model of the real world (real world). Comparison of conceptual models that have been determined with the real world (real world) in order to generate debate on perception and the changes will be beneficial. Checkland describes four ways to compare the model with the real world, namely informal discussions with formal questions, create a scenario based on the operation of the model, and try to model the real world the same structure with the conceptual model (Checkland and Scholes, 1990). In the comparison phase, the conceptual model as compared with the corresponding theoretical framework with research interest. At this stage the author tries to make a comparison between the conceptual models that have been formulated in the previous stage with the fact that of the real world.

Stage six. Expected changes in the model, which takes into account changes must be 'culturally feasible' and 'systematically desirable', meaning that the model was built taking into account the feasibility and as needs change. In this stage, the model is built, will be discussed again with PO actor who has provided input about the desired change. Both changes are needed in the institutional environment, cooperatives, cooperative members, etc.

Stage seven is doing the action. This methodology is different from the positivist approach in which this approach does not emphasize hypothesis testing. In this study, researchers took position foreigners who provide consultation and input through the creation of the model (system) to describe the situation and examine the phenomena that occur in it, then resulting in a pattern of action (system) that has been updated recently.

### **Exploration of Dairy Cooperative Institutional Strengthening Process Using SSM Method**

The research was conducted on dairy cooperatives in Indonesia, but the researchers tried to focus on the dairy cooperative that KPSBU Lembang West Java. This decision was taken because of West Java is one of the largest milk producing areas in Indonesia and KPSBU Lembang is one of the dairy cooperatives in Indonesia and is one of the best cooperatives in Indonesia. As one of the best dairy cooperatives is supposed KPSBU Lembang has a good management system and governance. This study not only uses seven stages of SSM (Checkland and Poutler, 2006), but also using social analysis, cultural, and political and combine them to get a complete picture in answering the question of how an ideal form of institutional strengthening of dairy cooperatives in order to compete and bring prosperity for members. This study emphasizes on providing an ideal model of the dairy cooperative effort strengthening institutional based on the fundamental needs of cooperatives and farm management from the perspective of cooperative dairy enthusiasts and dairy farmers.

### **Describing the problem situation**

Soft systems methodology (SSM) is an approach to solving a complex problem situation unstructured analysis based on holistic and systems thinking. SSM also is a participatory methodology that can help the different stakeholders to understand the perspective of each stakeholder. SSM focus is to create a system

activity and human relationships within an organization or group in order to achieve common goals. (Checkland and Scholes, 1990, *Soft Systems Methodology in Action*).

In the first stage aims to provide an overall picture of the problem encountered and can then be used to analyze a variety of problems that occur and to understand situations that are problematic. The intervention process is a form of intervention analysis process of identifying actors that exist in the real world (real world) which is an overview of their role in the problem to be investigated. In the process of this intervention researchers must determine who is involved as a client (C), Problem Solver (PS), and Problem Owner (PO).

The client in this research is a dairy cooperative in Indonesia especially KPSBU Lembang. Depiction of business situation this problem taken based framework Chaddad (2009), in which the co-operative governance pared in 7 dimensions namely ownership, authority, incentive intensity, administrative controls, common staff, partner selection, contract law, this is done to get the ideal reinforcement dairy cooperative institutions in Indonesia to be able to bring competitive and dairy farmers to prosperity.

Problem solver in this study is the researcher, while some resources to support this research is KPSBU Lembang all elements of both the board and its members. Another sources was GKSI and the National Dairy Council is required to give an idea of how the system of dairy agribusiness in Indonesia so as to give an exact idea how should institutional strengthening dairy cooperatives in Indonesia is done. While acting as a problem solver is a dairy cooperative element, GKSI and the National Dairy Council.

At this stage the researcher find out what happen on cooperative governance, especially from the perspective of the farmers and the dairy cooperative management because they really know what the problem is happening on the ground. The problems that exist in terms of the ownership are on the management of cooperative breeders which actually do not quite understand what property rights means. Breeders understand that they were as cooperative owners are entitled to the division at the end of the year. The farmers do not know what their property rights, too. Cooperatives are not looking for investors to seek additional capital to develop the business so pristine ownership belongs to the members of the cooperative. Actually, the cooperative must seek investors; especially from the milk processing industry (IPS) can be very helpful in improving outreach efforts dairy cooperative itself. Dairy cooperatives in Indonesia mostly just formed a partnership in the form of technology transfer and management of farm milk storage system. Milk cooperatives have not regulate how property rights aspects of the farmers can be used as a form of collateral to obtain additional capital either from dairy cooperatives and other financial institutions.

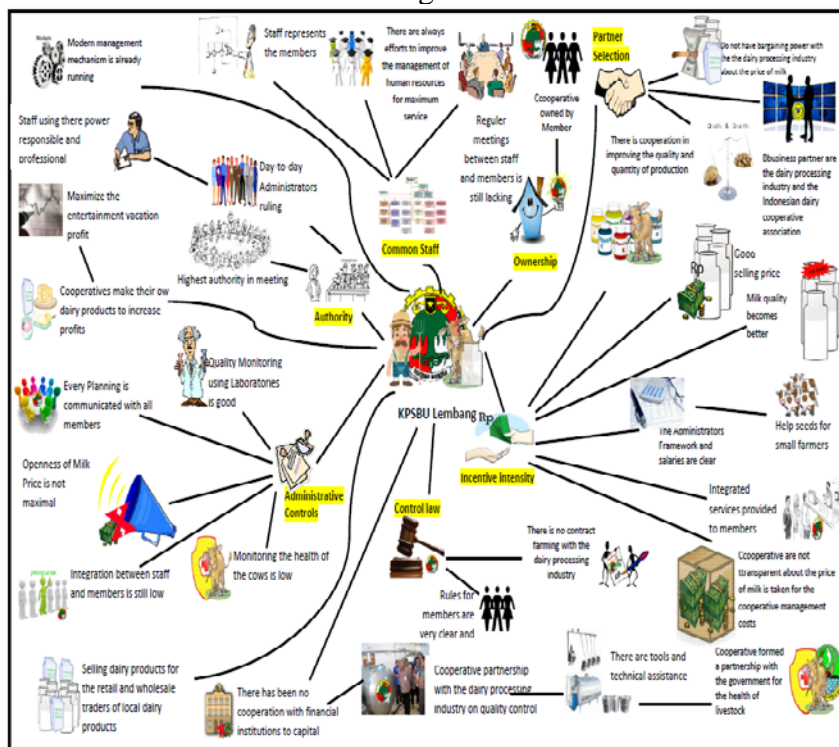
Cooperative services are provided to members in the form of integrated services that support farm management and troubleshooting production costs continue to rise. This is also done by the dairy cooperatives to maintain cooperative survival by maintaining the stability of milk production members. But efforts to provide this incentive is still not sufficient by the members because there is some form of quality of service provided continues to drop each year. Milk cooperatives reasoned that it happened beyond their control as the system of

national dairy policy that it is still not optimally deal with matters relating to the upstream production of milk that is the problem of feed, seed and vitamins for the price of livestock increasingly suffocating.

The form of cooperative in governance authority, administrative controls, common staff, and dairy cooperatives has tried their best to maximize them. But it is still insufficient to improve the capacity of cooperative efforts that cooperatives have also tried to establish cooperation with the IPS to continue to improve the quality of their human resources. All attempts made by the cooperative used to accommodate all the needs and aspirations of its members to improve services for them as a form of institutional good.

For the problem of partner selection and contract law related to IPS values make the cooperative bargaining position weak, this is because the GSKI already have an agreement in the form of a legal contract with IPS. This agreement in the form of an agreement between IPS and GSKI which make absorption in milk quotas by individual dairy processing company incorporated with IPS. In addition is to agree on a traded volume of milk, the price and quality. Dairy cooperatives (including KPSBU Lembang) do not have the freedom in selecting business partners for the distribution of most of their milk production is absorbed by the IPS, and the IPS will only accept material from the dairy cooperative with GSKI. KPSBU only working with companies that are not affiliated with IPS (PT Nestle Indonesia, PT Ultra Jaya, PT Frisian Flag, PT Sari Husada, and PT Indolacto-Indomilk). While with others, including other milk processing companies was limited to the development of management systems and training the managers, for example, is the PT Danone and development of Subang Milk Center (SMC) as business development in collaboration with District Government Subang. Exposure above problems will be described in the form of rich picture as follows:

Figure 2. Rich Picture



### **Formation of Root Definition and Conceptual Model**

After get an idea of how the problem occurred and simplify the rich picture, the following steps are performed by the researcher is preparing to make Root Definitions of Relevant Systems that relate to the problems of existing systems, which continue to make the root definition that describes the process of transformation to achieve goals (to do P, by Q, to Achieve R). (Checkland and Poulter, 2006).

The author uses a formula PQR (Checkland and Poulter, 2006) to establish the root definition of institutional strengthening dairy cooperatives, as follows:

"The system is owned and operated by the dairy cooperatives (KPSBU Lembang) in cooperative institutions (P) through the utilization of the network as a form of economic governance in the cooperative activities using contract farming institutional process (Q) for institutional strengthening in order to achieve objectives of the cooperative (R). "

To test the root definition is done by doing CATWOE analysis. CATWOE used to identify the stakeholders involved, transformation, weltanschauung (point of view), and later build environments for human activity system definition needed to fix the problem situation, as follows: (1). Customers: researchers, (2). Actors: dairy cooperative management (KPSBU Lembang), (3). Transformation: reconstruction of cooperative institutions in the form of institutional strengthening of cooperatives as a cooperative effort to increase competitiveness through contract farming institutional processes, (4). Weltanschauung: through identification based on variables associated with cooperative governance and network utilization on the economic activities of cooperatives as a form of institutional strengthening cooperatives through institutional processes farming contract, (5). Owner (s): Management of Dairy Cooperatives (KPSBU Lembang), (6). Environment Constraints: time and budget.

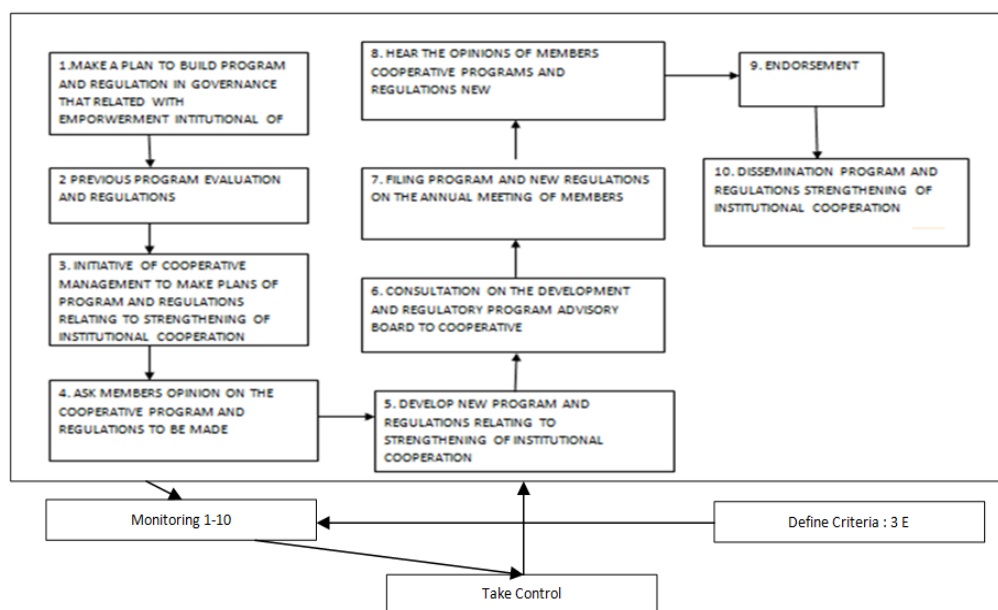
The next step is to establish a conceptual model, is a model that describes the activities of the system, in which the element is a verb. The activity is based on the root definition and structure of the verb refers to the basic logic (Checkland1993). In the conceptual model of cooperative institutional strengthening systems, researchers are trying to make a step in the system as follows:

1. Making the plan work of programs and new regulations in the cooperative governance related to institutional strengthening institutional cooperation through the process of contract farming.
2. Evaluation of regulatory and governance plan suitable RAT (the annual meeting of members cooperative) last year related to institutional strengthening institutional cooperation through contract farming process.
3. The existence of cooperative management initiatives milk (KPSBU Lembang) to design programs that work primarily related to the strengthening of institutional cooperative governance and institutional forms of contract farming.
4. The existence of cooperative management initiative to ask for the opinion on the draft program of the farmers as members in addition to regular meetings beside RAT.

5. Programming work program in cooperative governance related to institutional strengthening cooperatives.
6. Making consultation work programs and regulations related to the institutional strengthening of the cooperative to cooperative advisory board.
7. Filing a new regulation regarding the program and institutional strengthening cooperation on RAT.
8. Listen to public opinion and the views of the members about the new work program.  
8 steps to takes to get a response from members regarding the work program in terms of ownership of the system in order to get clarity whether this program is accepted rejected or revised.
9. Legalization and Determination.
10. Socialization programs work and strengthening institutional arrangements to members of the cooperative.

Here is an overview of conceptual models:

**Figur 3. Conceptual Model**



### Model comparison with reality and Institutional Strengthening Ideal Forms

Stage five was a comparison between the conceptual model of the real world (real world). Comparison of conceptual models that have been determined with the real world (real world) in order to generate debate on perception and the changes will be beneficial. Checkland describes four ways to compare the model with the real world, namely informal discussions with formal questions, create a scenario based on the operation of the model, and try to model the real world the same structure with the conceptual model (Checkland and Scholes, 1999).

In the comparison phase, the conceptual model as compared with the corresponding theoretical framework with research interest. At this stage the

author tries to make a comparison between the conceptual models that have been formulated in the previous stage with the fact that of the real world.

Ideally, at this stage, a comparison between the conceptual models have been formulated in the previous stage with the fact that of the real world. The discussion in this section is actually in the form of a table so that the SSM method was clearly visible, what is compared and theoretical reflections form what can be removed from the form of comparison or comparison in question.

In this section intentionally it is made into narrative form by researchers to facilitate comparative understanding of the operational measures, including models based on the logic of the researchers. That compared to the state of the real world that can be understood more systematic measures that will be taken and the consequences. From the form of conceptual models that can be seen that, there are some points that lead to a process of change in the form of awareness both individuals and organizations both on administrative issues and technical issues that are useful for the institutional strengthening cooperative and competitive to be able to bring prosperity to its members.

Transformation process that must be done to answer the fundamental needs in the context of reconstruction of governance in order to create a cooperative with governance have bargaining power against IPS and be able to compete with the onslaught of imported products, as well as have the ability to develop scale cooperative efforts in order to promote the welfare of members as vision main in the formation of cooperatives as a form of institutional strengthening process. Researchers noticed that in the discussion of cooperative governance based Chadadd thinking, there is no mention about the indicators of social capital, whereas the joint lives of people around the world, especially Indonesia social values as a society that thrives on social capital can maximize each organization's governance. As we know every organization requires the same value in achieving a common goal.

By adapting the agreed values as a form of social capital would be easier in the achievement of organizational goals. In this study the process of institutional strengthening of cooperatives will be able to easily produce cooperative competitiveness and bring prosperity to its members to maximize the power of social capital as the people of Indonesia. The ideal form of institutional strengthening in the Indonesian dairy cooperative, led to the development of cooperative efforts are made to increase the role of the community, especially the economically weak in economic activities to improve the well-being of a group.

One form of institutional strengthening process that can be taken by the dairy cooperatives in Indonesia is through the establishment of the institutional contract farming as a form of fair partnership and can improve the welfare of dairy farmers. Contract farming is a form of institutional partnerships that promote an honest form of container and the interests of farmers, dairy cooperatives and IPS so dairy farm development can go well. The government must be able to make policy embodied in the contract farming system where there are integration of the various elements of a good breeder, cooperatives, social studies and government. Where the emphasis on development and building for which the co-operative dairy cooperatives act as intermediaries between the farmer with IPS, farmers and the government in terms of production and absorption problems livestock development efforts.

## Conclusion

This study tries to analyze the problems experienced by dairy cooperatives in Indonesia in the form of governance issues, service issues for its members to be able to milk the cooperative competitiveness and bring prosperity to its members. The study also tried to look at the basic problems faced by most of dairy farmers. From the observations made, researchers get an idea that a common problem in the management of cooperatives, especially in the institutional problem is still weak due to the low system of cooperative management and human resources services cooperative cooperatives perceived problem have not been able to touch up the members.

Researcher gets an ideal picture of the institutional strengthening of dairy cooperatives in Indonesia to be able to bring competitive and dairy farmers to prosperity. To overcome the problems faced by the dairy cooperative process is needed institutional strengthening One form of institutional strengthening process that can be taken by the dairy cooperatives in Indonesia is through the establishment of institutional Strengthening the institutional contract farming as a form of fair partnership and can improve the welfare of dairy farmers. Contract farming is a form of institutional partnerships that promote an honest form of container and the interests of farmers, dairy cooperatives and IPS so dairy farm development can work well.

In this study researchers used the SSM method that uses social analysis, cultural, and political and combine them to get a complete picture in answering the question of how an ideal form of institutional strengthening of dairy cooperatives in order to compete and bring prosperity to members.

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