

CHAPTER 5

CONCLUSION

The research of “Dairy Cooperative’s Management Process Contributing to Occupation Development of Dairy Farmers in Upper Northern Thailand” being an integrative research (Mix Method) which is conducted by quantitative and qualitative research methods is aimed to; (1) study the factors influencing to dairy cooperative’s management process contributing occupation development of dairy farmers in upper northern Thailand and the decision to continue doing dairy farming of the farmers (2) study the dairy cooperative’s management process contributing to occupation development of dairy farmers in upper northern Thailand (3) suggest the proper and efficient management process of dairy cooperatives in upper northern Thailand. The researcher focuses on study both in member (dairy farmers) and organization (dairy cooperative) levels because the dairy farmer and cooperative are considered as the heart of its development that need to be developed at the same time and as relevant impulsion of dairy farming occupation in upper northern Thailand in the foreseeable future.

5.1. Conclusion

Factors influencing to dairy cooperative’s management process contributing occupation development of dairy farmers in upper northern Thailand and the decision to continue doing dairy farming of the farmers can be concluded as the following:

1. Factors influencing to dairy cooperative’s management process: member level

According to analysis of personal basic factors, economic factors, social factors and dairy farming operating factors of the dairy farmers in upper northern Thailand by using a questionnaire (section 4.1.1) along with analysis of factors influencing to management process of the dairy cooperative in the considering of representatives of dairy farmers in upper northern Thailand by using focus group

discussion (section 4.1.2), it found that the following influences the management process of the dairy cooperative in northern Thailand:

1.1. Personal basic factors

- Age: it found that the older farmer rather tends to quit dairy farming than the younger farmer. It reflects that age becomes one reason affecting to their decision in which the farmers has expressed that old age will greatly contribute to the decision to stop from this occupation.

“In few years, I must stop dairy farming because I am getting old. I cannot work.”

Petcha: Focus Group Discussion

- Level of education: it found that the farmer who has a higher level of education tends to quit farming rather than the farmer who has lower level of education. They reasoned that if the farmer who is educated in a higher level will use their knowledge with other occupation. Moreover it also found that the farmer who quits from dairy farming considered this as a secondary job that another way increased income for their family.

“The person who stops farming mostly has a regular work. They do not have enough time to take care of the dairy cattle.”

Amphon: Focus Group Discussion

- Knowledge in dairy farming: it found that most of them have good level of knowledge in dairy farming since they are experience-packed in this field. As a result that they have more knowledge and experience, they sometimes neglect to perform the right and proper routine of farming in some relevant issues that latterly cause them an unknown problem especially, the problem of quality of raw milk.

“If the cattle give birth to male cattle, we sell. If it comes out a female, we keep.”

Willy: Focus Group Discussion

1.2. Economics factors

- Labours used in dairy farming: it found that most of labour comes from the family in a kind of husband and wife since most of them still lacks of the

labour while some hire local alien labours. This is one limitation preventing them from expanding the dairy farm to be bigger.

“Unless we hire local alien labors, there is no one to do because the job is hard and dirty.”

Suwanan: Focus Group Discussion

- Financial source: it found that most of the farmers are in short of circulating funds in keeping the dairy farm operating or developing or expanding the farm especially, the farmer who has a small farm. In addition, the dairy cooperative does not have enough money to provide a loan for its members adequately and thoroughly because the cooperative is small and operates only selling the raw milk.

“If the dairy cooperatives are well-funded, we can make a lot of progress.”

John: Focus Group Discussion

1.3. Social factors

- Level of participation in various activities of dairy cooperative: it found that most of them give important in attending monthly and annual ordinary general meetings only since it concerns benefit they ought to receive or comply with the rules and regulations but they did not give opinion about cooperation with management of the dairy cooperatives especially, taking part in planning and supervising the overall operation of the cooperative; this information is identical to what gained from the focus group discussion in which the farmers has expressed that a managerial task is a responsibility of the chairman, committee and officer.

“A chairman and committee of the dairy cooperative said this is a good project, we must believe them.”

Woody: Focus Group Discussion

- Acquire information about dairy farming from various media: it found that channel of information cannot access to the farmers throughout the area due to obstacles and limitations. For example, a farmer prefers to watch other program than agricultural program that is put on air in an inappropriate schedule, and they do not give important to information receive. They usually reason that they do not have time because they need to find money to feed their family, that is to say, they care about survival of their own family than seeking for dairy knowledge.

“I have to wake at 4 in the morning to draw milk from the cattle, and after that I have to mow the grass. In the evening, I have to draw the milk again which will be finished around 2 pm. It becomes like this every day so I have no time for news, watching drama like anybody else.”

Nussaba: Focus Group Discussion

- Communication with officer concerning dairy farming: it found that in some area there is insufficient number of the officers especially, for the medium and small dairy cooperatives whose location is faraway; this information is identical to what gained from the focus group discussion in which the farmers has expressed that there is not enough officer to give support to the dairy farmers especially when the dairy cattle needs physical care and treatment. Some appears to have pessimistic attitude towards the performance of the officer which directly affects to the cooperative given to the government authority by the local dairy farmers.

“Sometimes when we make a call to them, they do not answer the call. They just ignore to help us. We have to help ourselves.”

Tony: Focus Group Discussion

1.4. Dairy farming operation factors

- Lack of land for dairy farming: it found that most of the farmers do not possess sufficient land and seems to be short of it that will be used for farming and growing the animal feed; this information is identical to what gained from the focus group discussion in which the farmers has expressed that now the community is growing at quite a speed affecting the higher land price, some of them had to move to other area remote from the community and in doing so, it needs a lot of money. Moreover the farmers also encounter problems concerning public utility and transportation. But some decided to quit dairy farming eventually.

“Now the land is too unreachable. We cannot move out and finally we have to quit dairy farming.”

Michael: Focus Group Discussion

- Being qualified for standard of DLD: it found that farmers do not give importance to improve their farm to be equivalent to required standard since it concerns a lot of money and in some area, the dairy cooperative does not have a policy to adjust the purchase price of raw milk for the qualified dairy farm; this

information is identical to what gained from the focus group discussion in which the farmers has expressed that some farmers do not realize to significances of making a standard farm even though it will give benefit to the farmers themselves, dairy cooperatives, processing factories as well as domestic consumers.

“Adjustment of the farm needs a lot of money. I do not know if it is going to worth. I do not want to lose the money.”

Sornram: Focus Group Discussion

“If I can qualify the standard, they do not give me more money because they do not have it.”

Woody: Focus Group Discussion

- Proportion of dairy replacement and milking dairy cattle: it found that most farmers have higher proportion of dairy replacement than the milking dairy cattle which the Livestock Department has determined that the proper proportion of dairy replacement should not exceed 25 – 30 percent of the whole amount. The reason why they have more dairy replacement than milking dairy cattle is that most of them tend to keep female calf to be raised until they can give milk without considering about genetic history – they have to bear on expenses keeping great numbers of non-milking dairy cattle which affects to the higher production costs.

“It is like buying a lottery ticket, If the dairy cattle give much milk, we are lucky.”

Sornram: Focus Group Discussion

- Capability to produce milk of milking dairy cattle: it found that most farmers have in possession of the milking dairy cattle that are able to produce minimum amount of raw milk which is in opposite direction of the purchase price of raw milk.

“We have to keep raising any milking dairy cattle that produce less milk and bear on all expenses because we are pity to sell them.”

Marsha: Focus Group Discussion

- Purchase price of raw milk (Baht/kilogram): from analysis of the data gained from the farmer of both groups, it found that farmers who quitted farming is partially contributed by low purchase price of raw milk in the past while the

production costs of raw milk keep skyrocketing – they are not in a coherent direction. Now the dairy farmers who still do farming must bear on the higher production costs especially, animal feed that tends to continuously raised; this information is identical to what gained from the focus group discussion in which the farmers has expressed that if the production costs get higher and higher especially animal feed while the purchase price of raw milk still remains on the same line, it may make more farmers to quit from this occupation.

“The animal feed’s price is up 10 Baht per one bag every year while the milk’s price takes like 10 years.”

Stephan: Focus Group Discussion

- Cognizance in operation of the dairy cooperative: it found that most of them have no knowledge, understanding in operation of the dairy cooperative and they do not understand the process of working together; this information is identical to what gained from the focus group discussion in which the farmers has expressed that membered farmers only has a right to vote in the meeting.

“A President and committee of the dairy cooperative said this is a good project, we must believe them.”

Woody: Focus Group Discussion

- Problem and obstacle in dairy farming: it found that most farmers encounter similar problem regardless of insufficient land for farming, insufficient financial support from the government, accessibility to dairy information, communication with government official, dairy training (especially, members of a small dairy cooperative), low purchase price of raw milk and costly concentrate all of these much contribute them to quit farming.

“I have no land for grass, and there is high competition in buying a young corn so I have to feed them with a straw and concentrate in a drought season.”

Paula: Focus Group Discussion

“Even I have many plots of land growing grass; I have to buy something else for the cattle during the drought season.”

Somchai: Focus Group Discussion

As the farmer is a substantial mechanism in pushing forward each operation of the dairy cooperative to be successful, it is necessary to give first priority to development of the individual. A solution to this problem needs to reconstruct knowledge, government authorities and other related organization – every concerned party have to cooperate with each other in systematic manner while the information is freely exchanged and the knowledge gained from the research is passed onto dairy farmers consistently.

For logistic regression analysis to find interrelation between 4 independent variables (personal basic, economics, social and dairy farming operation) and dependent variables that is the decision to continue doing dairy farm of farmers, it found that there are 6 independent variables that are related with the dependent with statistical significance at 0.05 such as 1) age, 2) experience of dairy farming, 3) practice in dairy farming, 4) level of satisfaction in operation of government officer concerning dairy farming, 5) opinions of the dairy farmer towards dairy farming succession of their children and 6) levels of problems and obstacles in dairy farming (economic aspect).

2. Factors influencing to dairy cooperative's management process: organization level

The dairy cooperative plays important role in giving support, help, cooperation within and outside the organization, and developing membered dairy farmers by aiming to upgrade the quality of living of its members.

From the analysis of status of dairy cooperatives and milk factories in upper northern Thailand by using SWOT analysis (section 4.2.1) by taking into account of internal factors which are managerial resources or commonly known as 4M: man, material, money and management along with analysis of management process of the dairy cooperatives in upper northern Thailand in the considering of any party who concerns with dairy promotion of the dairy farming in upper northern Thailand by using in-depth interview. (section 4.2.2) The finding can be summarized as follows:

2.1. Managerial resources

2.1.1. Man: committees of the dairy cooperative in every level have no knowledge and experience in managing the organization. The cooperative lacks of competent personnel to perform the managerial duties. Moreover some cooperative appears to have a dispute among its members. Most importantly, members do not understand their roles, duties and responsibilities as ownership of the cooperative which affects to cooperation level of the overall operation of the cooperative as well.

2.1.2. Material: most of dairy cooperatives do not have sufficient new and fashionable tools and equipments such as tools used in checking raw milk quality, and storing raw milk and computer, etc.

2.1.3. Money: medium and small dairy cooperatives have a problem of funding especially when supporting its members, and developing a raw milk collecting center. They cannot access to low interest loan. One cause of problem is from the low income members – they cannot save it for their own capital especially, the one who has a small farm.

2.1.4. Management: the complicated management structures of the large and medium cooperatives cause the decision to be delayed – unable to catch up with changing circumstance. Moreover each operation will adhere to too many rules. They lack of flexibility in running the cooperative. The importance is that none of actual cooperation and participation is encouraged by its members.

2.2. Management process of the dairy cooperative

2.2.1. Planning: most of dairy cooperative will have a similar annual plan and is frequently come out of its committees and managers while the plan is conducted by an unreliable source of information – there is no pre analysis and no precise and concordant objectives and goals have been prior lay out before actually implemented. Besides, the members do not take part in planning which is another reason why the operation is not successful as firstly expected.

2.2.2. Organizing: large and medium sized dairy cooperatives will have a complicated management structure and too many chains of command while the power is centralized, that is to say, the committees and managers make unclear duties and responsibilities. Moreover decision making is sometimes too much referring to

the rules and regulations. From the opinion made by the government authorities, it reflects that decision making of the dairy cooperative is not united and its operation does not contribute to independent system.

2.2.3. Directing: power in making decision is given to a president or manager and it is in a form of top-down directing. Sometimes the directing is inconcrete and unclear – no deliberate analysis of information before directing. Own thought and emotion comes before reason so that the members feel awkward to comply with and lead to dispute.

2.2.4. Controlling: most of dairy cooperatives do not have clear and precise controlling since the idea of controlling is like finding each other's fault and this will lead to resentment within the cooperative. For all these years, it found that many cooperatives encounter a problem of non-transparent operation of the committees or officials. The members neither pay attention nor take part in controlling the overall operation of the cooperative since they trust them and they have no managerial knowledge and understanding – thought barrier then occurs that they think this is a complicated and time-consuming matter when getting involved with. Most of members expect only being paid for the raw milk on monthly basis and being supported by the dairy cooperative.

Factors influencing management process of the dairy cooperative in upper northern Thailand both in member level and organization level as described above should be developed at the same time so that it can create more efficient management process since the members are impulsion to this. While the dairy cooperative is deemed important in providing support to its members to help them make a living and be able to feed their family without debts and with satisfaction and pride to do dairy farming – this will contribute to sustainable dairy farming occupation under the high competitive and changing situation.

5.2. Discussion

The finding of this research also found that factors influencing the management process of dairy cooperatives in upper northern Thailand can be explained as follows:

1. Factor influencing to dairy cooperative's management process in upper northern Thailand in member level (dairy farmers)

From the research, it found that members still encounter several problems in doing dairy farm. All of them prevent them from development of their occupation and affect to management process of dairy cooperatives that is inefficient enough as firstly expected. It can be explained below:

1.1. Knowledge and understanding of members

According to what gained from the research, it discovered that most of members do not possess a good level of knowledge about raising dairy cattle especially, when it comes to the quality of raw milk. This information is identical with what Yoosamran, P. had studied (referred by Milk for Thai Club, 2009) that most of Thai dairy farmers lack of relevant knowledge and understanding for raising the dairy cattle for high quality of raw milk. In addition, they do not know the cooperatives' system so that they do not know what their role and responsibility are that affects to participation of the members. This information is identical to what Santaweek, T. has studied (cited in Kaewsom, N., 2004) that problems and obstacles in operation of the dairy cooperative arises out of its members who have low education level (up to elementary school level 4). The cooperative is run without right understanding, knowledge and techniques.

1.2. Material in raw milk production

It found that most of members do not have necessary production materials such as a source of roughage, land for raising dairy cattle and supporting funds, etc. especially, the members who have a small farm. Their operation cannot reach its maximum potential. This information is identical with what Jitmanus, P. (2003) had studied that Si Nakhon District Dairy Cooperative in Sukhothai Province has in their possession somewhat little land for farming and little fund for the intensive growth of their business.

1.3. Dairy source of information and dairy cooperative management

From the research, it found that members ignore to dairy information because of limited time and that they are more preferable to other program. This information is identical with what Kaentan, D. and others (2001) had studied that dairy farmers in Nakhon Sri Thammarat Province has very limited time to receive the

information because they have to work to feed the family. For the information regarding the cooperative's management, most of members expressed that it is the duty of the committees and officials. They lost their attention to this matter. This information is identical with what Santaweek, T. (cited in Kaewsom, N., 2004) has studied that most of members do not pay attention and are enthusiastic in operation of the dairy cooperative. That is to say, they lack of responsibility of own cooperative.

Consequently, passing on the knowledge from the government official to the members is an operation of inconsistency with various limitations such as small numbers of official in the area, lack of fund and changing policy of the government, etc. Members in some area has pessimistic attitude towards the official and do not cooperate with any activity arranged by them especially, the members of medium and small sized dairy cooperation located in remote area. This information is identical with what Kaentan, D. and others (2001) had studied that dairy farmers in some area of Nakhon Sri Thammarat Province have negative attitude towards roles of government official because they feel that this official cannot be reliable or help them when trouble occurs – they lack of confidence and they do not accept and ignore to cooperate with government official as much as it should be.

1.4. Dairy farming technology of the members.

It found that quite amount of members are old – they hardly accept the new farming technology and adhere to the oldschool way of farming because they can still sell raw milk to the dairy cooperative as always. Despite the fact that bringing the new technology into use will help promote their farm to be more efficient and increase more productivity and maintain the quality of raw milk for more extensive period as well as reduce possible dispute between the farm and community. One part of problem is that they think technology is something complicated and need a lot of money to invest. This information is identical with what Aiumlamai, S. and others (2006) had studied that weakness of Thai dairy farmers is that they do not accept the academic knowledge and technology to be used in systematic manner.

From the study of factors related with decision to continue doing dairy farming of farmers, it found that the important factor influencing to the decision of dairy farming occupation continuance of the farmers can be concluded as the following:

1. Age of dairy farmers

Age of dairy farmers has negative relation with the decision whether or not to continue the dairy farming occupation. It means that younger dairy farmers would rather decide to continue doing dairy farm than older one because the major work concerns with much physical dedication working from dawn till dusk on daily basis – no day off is allowed. So the older farmer cannot bear on hard work. On the other hand, the younger farmers will turn to and be more acceptable to the dairy technology than the older farmers who adhere to the old style of farming because they think that it is already suitable and they do not want to invest more money. That is the reason preventing the old farmer from the development until they decide to quit farming eventually. This information is identical to what Suthasupa, P. (1998) had studied that membered dairy farmers of Chaiprakarn Dairy Cooperative and Maejo Dairy Cooperatives in Chiang Mai Province whose age are older tends to be less acceptable to the new invention than the younger one.

2. Experience of dairy farmers

Experienced of dairy farmer has negative relation with the decision whether or not to continue the dairy farming occupation. It means that little experienced farmer would rather decide to continue doing dairy farm than the more experienced one because most of the little experienced farmers are the new beginner in this kind of farming and somehow inherit this occupation from their parents. They can enlarge the farm without limitations of workforce, land and budget. This information is identical to what Ekasingh, B. and others (1997) had studied that farmers in northern area who just begin this occupation have motivation in enlarging the farm by giving a reason that fewer numbers of dairy cattle will result in less money in return which cannot cover the expenses.

3. Practice in dairy farming

Practice in dairy farming of dairy farmers has positive relation with the decision whether or not to continue the dairy farming occupation. It means that farmers who has more efficient operation would rather decide to continue doing dairy farm than the one who has less efficient operation because the farmers who do not follow the right academic principle usually encounter a problem of raw milk quality

which leads to financial loss that is ought to receive from selling raw milk and the higher production costs per unit is in a way getting higher. This information is identical with Uraikul, S. (1997) study that farmers who do not follow the right academic principle of farming especially, giving improper portion of concentrate to the dairy cattle in fewer amounts than that is required will cause low productivity of raw milk.

4. Level of satisfaction in operation of government officer concerning dairy farming

Level of satisfaction in operation of government officer concerning dairy farming has negative relation. It means that farmers who have lower level of satisfaction in operation of government officer concerning dairy farming would rather decide to continue doing dairy farm than the one who has higher level of satisfaction. This can be explained that no matter how much dairy farmers feel satisfied towards operation of dairy-related government authorities, they tends to resign from this occupation as results of several factors such as age of farmers, insufficient income, health of farmers and dispute with neighboring community, etc.

5. Opinions of the dairy farmer towards dairy farming succession of their children

Opinions of the dairy farmer towards dairy farming succession of their children have positive relation. It means that farmers who think that their children will inherit their occupation would rather decide to continue doing dairy farm than the farmers who think that their children will not inherit their occupation because dairy farming in the viewpoint of their children is harder than other occupation since they have to work all day long without a day off. This information is identical with what Ekasingh, B. and others (1997) had studied that farmers in northern area think that if their children are educated in a higher level or have a better job, they will not let them succeed their occupation. And it is also identical to what Samakkarn, S. (cited in Ratanathammathee, K. 1995) had studied that farmer will encourage their children to be well-educated in order to choose other better job than agriculturist.

6. Levels of problems and obstacles in dairy farming (economic aspect)

Levels of problems and obstacles in dairy farming (economic aspect) have negative relation. It means that farmers who encounter less economics problem

of dairy farming would rather decide to continue doing dairy farm than the farmers who have more economic problems of dairy farming because farmers who have insufficient income and outstanding debts and cannot access to government loan feel unsecure in their occupation so they adapt to do other occupation instead. This information is identical to what Deesuankoke, C. and Thirasasawat, S. (1994) had studied that one reason contributing them to do other agricultural labor works is from low income receivable that is not cover the expenses in their family and they expect to have more money that creates economics secureness to themselves and their family.

2. Factor influencing to dairy cooperative's management process in upper northern Thailand in organization level (dairy cooperatives)

From the research, it found that its management process of the dairy cooperative has limitation in numerous fields – all of them hinder it from reaching maximum capability especially, medium and small dairy cooperative. They cannot fully response to need of its members particularly, in developing the farm. It can be explained as follows:

2.1. Personnel of dairy cooperatives

Committees, officials and members of the cooperative do not have knowledge and understanding about cooperative' system and do not possess managerial and specific skills in running the cooperative. They have different opinions. This information is identical with what Aiumlamai, S. and others (2006) had studied that weaknesses of Thai dairy organizations are incompetent administrator; they do not have knowledge, intention and consistency in running the cooperative. It also corresponding with what Boonphang, S. (2005) had studied that Maewang Dairy Cooperative Limited assigns the task that is not suitable to the human resource they have so the cooperative is underdeveloped.

2.2. Technology of the dairy cooperatives

Most of the cooperatives do not have necessary tools and equipments in checking the quality of raw milk and preserving its quality especially, the small cooperative. And most of data is collected in a documented form; none of data system technology is used. Thus the cooperative has limitation in tracking operation of its members and that the development cannot be delivered to its members as well. This

information is identical with what Suthasupa, P. (1998) had studied that Chaiprakarn Agricultural Cooperative Limited and Maejo Dairy Cooperative are still in need of information technology, database system and necessary tools and equipments.

2.3. Funds of dairy cooperatives

Funds are highly indispensable for the development of management process of the dairy cooperative to be more efficient as it involves with many aspects especially, development of personnel and technology. But for the medium and small dairy cooperatives is still hard to fix as a result of limited members. This information is identical with what Aiumlamai, S. and others (2006) had discovered that Thai dairy cooperatives still needs more fund in their management process and it is identical with what Parinyasutinun, U. (2001) had studied that Nampong Dairy Cooperative Limited has limited amount of funds given for its members while the committees do not explain about the investment and hardly provide the new source of funding – most of the loan are solely made with the Cooperative Promotion Department.

2.4. Management process of dairy cooperatives

Management process is formed by 4 basic elements such as planning, organizing, directing and controlling. From the result of this research, it discovered that the dairy cooperatives still have problems in the 4 mentioned aspects which can be explained as follows:

2.4.1. Planning

Most of dairy cooperative will have a similar annual plan and is frequently come out of its committees and managers whereas , the members do not take part in planning; that is why the operation is not successful as firstly expected. Moreover lack of using reliable source of information both from inside and outside the organization to be jointly analyzed makes unclear objectives. And the management that is too reliable on government system is so much uncreative. This information is identical with what Aiumlamai, S. and others (2006) had studied that most of dairy cooperatives do not have a long term plan. And it is also corresponding with the study result of Sintupun, N. and others (cited in Parinyasutinun, U, 2001) that one problem of Sakhon Nakorn Dairy Cooperative is that their plan is not thoroughly analyzed before implemented. And the study result of Ayuwat, D. and Subhadhira, S. (2005) also emphasizes that Committees of Khon Kean Dairy Cooperative needs its

members to be a part of each activity or planning to develop the cooperative and auditing the performance of the cooperative.

2.4.2. Organizing

A complicated organizational structure especially of the large and medium sized dairy cooperatives that needs to be based upon rules, regulations and provisions of the government cause delay in making a decision. In addition, the cooperative absences from harmony in making a decision of the committees, and duties and responsibilities division are not clear. This information is identical with what Ayuwat, D. and Subhadhira, S. (2005) found that a management pattern of dairy cooperatives is quite too formal and somewhat likes the government one. This causes delay in making a decision. The study result of Rattanavaraha, V. (1999) also emphasized the matter that duties and responsibilities division between the committees and operative officials is inconcrete and causes repeated and overlapped works.

2.4.3. Directing

Most directing is only made by the chairman or manager of the dairy cooperatives – there is not obvious. Sometimes they do not thoroughly take into account of information before directing and the decision is mostly based on their though and emotion. This information is identical with what Parinyasutinun, U, (2001) had studied that committees of the dairy cooperative must deliberately analyze the data firstly in order to make a precise and accurate decision which will affect to the efficiency of operation. This is also identical with evaluation report of the small dairy cooperative development project in Northeast region conducted by Chaiyod, U. and others (cited in Ayuwat, D. and Subhadhira, S, 2005) that in some cooperatives whose president is too self-confident and self-centered, most of them used to be a leader of an agricultural group, and from whom directing is made, frequently is not checkable.

2.4.4. Controlling

Most of the dairy cooperatives do not give importance to a concrete controlling system because they think that doing so is like catching somebody's fault that will lead to dispute within the organization. As a result of this, it has created an operation that is not transparent. This information is identical with

what Ayuwat, D. and Subhadhira, S, (2005) had studied that operation of Khon Kean Dairy Cooperative lacks of internal investigation so the opacity often occurs. Some part of the problem is from the members themselves that they think that the investigation duty is not a part of their job.

5.3. Suggestion towards proper and efficient management process of dairy cooperatives in Upper Northern Thailand.

In reference with the discussion made above, it reflects factors influencing management process of dairy cooperatives in upper northern region and factors influencing decision to continue doing dairy farm of dairy farmers. All of them are limitations to the development of dairy farming of farmers and management process of dairy cooperatives to be more efficient in the future.

Therefore the researcher hereby suggests management process that facilitates to the development of dairy farming of farmers in upper northern region of Thailand which is proper and potential management processes of dairy cooperative in upper northern region emphasizing on development both in member and organization level simultaneously including development of dairy-related organization both government and private organizations as the following:

1. Dairy Farmers Development (Member-level)

1.1. Knowledge and understanding development of members

It is necessary to emphasize on passing the dairy knowledge and principles of cooperative operation onto its members so that they can carry out the dairy farming and manage the cooperative in an efficient way. Moreover the members should adjust their attitude to be more team-working which will lead to a strong integrated organization corresponding to the study's result of Kanchanasinith, P. (1999) that knowledge about right way of dairy farming, good attitude towards raw milk production as well as bookkeeping of farmers should be promoted. This information is also identical with Jaicham, A. (2005) that dairy cooperative should arrange training to create understanding in principles of cooperative's operation to its members.

1.2. Raw milk quality development of members

Dairy cooperatives should procure and provide production material that is necessary to its members by grouping to directly purchase it from the factory or other manufacturers in order to reduce the production costs of raw milk and this is also considered as a wide-opened opportunity especially, a member who do a small farm to access to funds more easier and comfortable – the fund will be used in improving their own farm. Cooperation with government authorities in passing on the technological and skillful knowledge in farming on consistent basis should be done. This information is identical with the study's result of Milk for thai Club (2009) that the dairy cooperatives should have a secondary business except from selling raw milk. Such business also needs to involve with it members.

1.3. Dairy farming and cooperative management communication channel development.

Related government authorities and cooperatives have to work together to spread the dairy farming and cooperative management news to its members as the proper medium should be selected. This information is identical with what Suthasupa, P. (1998) had studied that the dairy cooperative should apply various techniques in passing on the new technology such as a news tower, a comment box, a handbill, video, local newspaper and observation study of the successful cooperative, etc.

However, government authorities and official of the dairy cooperative who work in promoting the dairy farming still plays an important role in spreading the dairy and cooperative management news because they are intimate with members. So they should give importance to pass on such knowledge to this group and numbers of official should be equivalent to the need of its members. This information is identical with what Boonphang, S. (2005) had studied that the dairy cooperative should provide sufficient numbers of personnel to the management system and dairy farming promotion. The training of personnel should be arranged to enhance more knowledge.

1.4. Technological Development of Dairy Farming

The related organization must build up knowledge, ability and technological skills to its members as such technology must be accessible and actual

functional by its members. This information is identical to Chomchat, S. (cited in Milk for Thai Club in 2008) that government has to promote the farmers to use cattle's dung in gasification process for electricity generator. This method can exclusively reduce the production costs.

2. Dairy Cooperative Development (Organization-level)

2.1. Human Resource Development

Dairy cooperatives and concerned organization must allocate the funds or cooperate to study and give training to committees, officials and members to be a knowledgeable person who understands the principle of cooperative and to be a skillful worker who can carry out responsible duties efficiently. This information is identical with what Parinyasutinun, U. (2001) had studied that dairy cooperative should more allocate education funds to its committees, official and members.

2.2. Physical resource development

Any related organization who gives financial support to the dairy cooperative in developing a raw milk collecting center to qualify the standard, promote a parallel business that can make more money to the cooperative, and enhance more skills in using equipments, tools and machine efficiently by focusing on the cooperative whose limitation is funding. This information is identical with what Ruengpiboon, S. (2007) had studied that a raw milk collecting center should have more tools and equipments in checking and measuring fat and protein contained in raw milk and they should motivate the farmers to have a good farm management including giving relevant knowledge to an official who works in a raw milk collecting center in checking raw milk quality.

2.3. Financial resource development

Financial resource is somewhat related with human and physical resources. Therefore the committees of the cooperative must highlight to fundraising, accumulate capital reserves and spending of members so that they can be dependent. This information is identical with the study's result of Seesak ,B. (cited in Parinyasutinun, U., 2001) that weakness of agricultural cooperatives in development is financial support from government section.

2.4. Management resource development

2.4.1. Planning

A good planning must render opportunity to members to take part to reflect a problem, a cause of problem and their actual need – the committees can analyzed the information gained with other reliable source of information of the cooperative for planning with precise and clear objectives and goals. Each project must contain a proper specific timeline that aims for the common benefit as priority matter. Most importantly, the committees must be united in planning. This information is identical with what Kaewsom, N. (2004) had studied that the cooperative needs to consistently arrange an activity to urge participation from committees, officials and members who would join in management of the cooperative. And it is also corresponding with what Aiumlamai, S and others (2006) had studied that weakness of Thai dairy cooperatives is lack of long-term planning.

2.4.2. Organizing

Dairy cooperative must organize a suitable structure in accordance with the size of business. The chains of command should be reduced and the power should be decentralized to responsible officials to create an urgent response and remedy to the problem; to put the right official to the right position; to provide service to its members throughout the responsible area; and to cooperate with related organizations in acquiring of advice, support and help. This information is identical with that Rattanavaraha, V. (1999) had studied that in the present circumstance the cooperative has operated more than one business and the numbers of their members are increasing. The old management structure cannot contribute the cooperative to success so it needs to be adjusted in regard with the surrounding situation. It is also corresponding with what Aiumlamai, S and others (2006) had studied that the dairy cooperative need to more cooperate with other organizations such as Cooperative for Agriculture or Grass Cooperative, etc.

2.4.3. Directing

Development leadership of a leader in every level is deemed highly necessary. Especially, the dairy cooperatives and related organizations must arrange training of a leadership skill to its committees and officials. There should be improvement in making command as each directing should be reported

back, and reliable and precise. Proper and systematic performance audit should also be promoted. This information is identical with Milk for Thai Club (2011) that funds and academic knowledge cannot build up the success unless the committees of the dairy cooperatives make determined effort and take the job seriously.

2.4.5. Controlling

The dairy cooperatives should have more concrete controlling system by designating index in operation and performance of the responsible officer. The opportunity must be opened to related persons in every level to create controlling system. Moreover the cooperative must develop good attitude to the leader in every level including develop morality of the subordinates. This information is identical with what Hiranratsamee, P. (2001) had studied that solution of controlling problem is to create high level of morality in order to develop the personnel to be efficient and dedicated for the task of the organization.

In achieving the success of management process of the cooperative, there must be cooperation and support from other organizations since the cooperative cannot over all tasks and render service tasks the whole targeted group. Thus, in order to make an efficient management process, related organization must take part in determine the direction of the development as follows:

3. Related Institutes Development

Related organization must develop potential of its personnel relating with dairy farming consistently to enhance knowledge and skill in operating which can be made through training, activity observation and seminar including implanting working ethnic. This information is concordant with the study's result. The farmers lack of self confidence and have negative attitude towards government authority. Moreover the government should develop supporting system of dairy farming and management process of the dairy cooperative by setting up a center or institute where is entitled to give academic support, technology and funds to farmers and agricultural organization. Consequently, cooperation between related organizations to work in more offensive style must be contributed. This information is identical with what Aiumlamai, S and others (2006) had studied that strength of Thai dairy cooperatives is that the government always gives support to the cooperative more than other kinds of

organizations because of its well reputation, the advantage in developing the dairy cooperative in the future.

However, certain government's rule and policy still lies as an obstacle in development in both level: member and organization levels. So there must be adjustment of law to make the dairy cooperative's operation more united in management as well as flexible to the changing world – they can do business in more offensive style especially, the marketing. Furthermore important policy that is necessary to dairy farming occupation of the farmers must be consistent and precise especially, the policy promoting people to drink more milk. This information is identical with what Damtamis, S. had studied (cited in Milk for Thai, 2010) that the government must place importance to promotion and campaign in turning people to drink more milk – this is another solution to put Thai dairy business in progress.

As dairy farming occupation has been given serious support and promotion from Thai government via government authorities, agricultural organizations, related private organization and education institute for all 50 years, it made dairy farming occupation to be more acceptable to Thai farmers and became a leading country in Indo-china region. But in the present circumstance that threats from both inside and outside the country deteriorates morality of Thai dairy farmers who feel unsecure in their occupation and Thai dairy industry. Even though Thai dairy industry tends to have more progressive level than the past such as raw milk purchase price upraise according to economics standing, government policy that increase milk drinking days and extend more level of students to drink milk, and any related organization in which is ready to give academic and financial support and help to Thai dairy farmers and cooperatives by aiming to develop Thai dairy farming to have a standard in producing milk to export dairy products to ASEAN, mid-east and South Africa countries;

Thai dairy farmers still encounter significant obstacles in carrying this occupation in the future regarding with production material price upraise, FTA agreement with Australia and New Zealand, and extensive expansion of community causing environmental problems with a dairy farm, most importantly, decreasing tendency of Thai milk drinker because of more expensive price and substituting products whose price is cheaper. The problem needs to be fixed at the cause that is to

reduce the production costs and to create good consciousness to the farmers who serves as a manufacturer.

As days go by, recession takes over the dairy farming occupation to which the new generation does not pay attention. Therefore, creating better perception towards dairy farming occupation to the new generation by starting with the juveniles in the community where dairy farm is located is somewhat necessary under cooperation with concerned parties in the area such as dairy farmers, dairy cooperative, government authority and private organization including schools in such community. In doing so, it can be done in many ways like throwing a dairy exhibition, a milk drinking campaign to promote good perception in doing dairy farming occupation. Besides, this will create motivation to juveniles in selecting dairy farming as their occupation in the future.

For the dairy cooperative, they should take part in directing, supervising and helping dairy farming of the members especially, dairy cattle deselection and raising dairy replacement. The importance is that number of small farms should be decreased. For the management process development of the dairy cooperative, there must be systematic management that emphasizes on 360-degree participation from every party in every process, particularly, giving members opportunity to help solve the problem and run the dairy cooperative under the belief that everyone has actual effort and participation in managing the cooperative. Also, the dairy cooperative has to adhere to the principle of “sufficient economic” to be applied for its operation.

Most importantly, establishing harmony in all parties who share the same interest in dairy farming such as dairy farmers, dairy cooperative and government sector, etc is deemed indispensable. They should come together in managing Thai dairy industry to be strong in which information is exchanged between and flown through among them. Using knowledge and existing research to pass onto the dairy farmer who understands the concept of common benefit than self-benefit should be promoted. They should not take advantage from each other and expect to give consumers the best quality of raw milk with a fair price. These are how Thai dairy farmers and cooperative should be developed to be strong and sustainable. Moreover, this is also considered as creating food secureness to Thailand.

5.4. Suggestion from this study

Now, direction of Thai dairy industry tends to expand because many factors more facilitate to dairy farming than other agricultural occupation. The concerned personnel of management of dairy cooperative especially, president, committee and manager should make understanding and place importance to context of changing dairy industry of Thailand nowadays to apply it as an opportunity in developing their own dairy cooperative while preparedness for impact from such change should be predetermined. The context of changing dairy industry of Thailand can be summarized as follows:

1) Upraise of a guaranteed purchase price of raw milk at factory from 17 Baht per one kilogram to 18 Baht per one kilogram (on March 15, 2011) catches much attention from dairy entrepreneurs and former dairy farmer tends to expand their farm to be bigger.

2) A policy to increase milk drinking days of the school from 230 days to 260 days and increase milk drinking to elementary school level 4 – 6 put a high demand of raw by a processing factory.

3) Related government authorities are ready to give academic and financial support to dairy farmers and cooperative.

4) Opening of AFTA increases opportunity for Thailand to export dairy products to other ASEAN countries and to expand the market to the mid-east and Africa countries.

Even though future confidence of domestic dairy products contributes farmers and processing factory entrepreneurs to invest in productive expansion to response increasing consumers especially, the school milk, the dairy farmers and cooperative and entrepreneurs of processing factory in the country still has limitation influencing to development of both dairy farmers, cooperatives and marketing expansion of entrepreneurs of processing factory as described below:

1) Production material prices' upraise both in raw milk production of the farmers and managerial costs of the cooperative and entrepreneurs of processing factory cause high production costs and tend to keep skyrocketed.

2) Opening of FTA with Australia and New Zealand contributes domestic entrepreneurs of processing factory to use imported milk powder instead of using raw milk that is produced in the country while concerned authorities has no power and do not fully enforce law in checking quality of dairy products lunched by entrepreneurs of processing factory including enforcement of tax measurement and an import quota of milk powder.

3) Extensive expansion of community area directly affects extension of dairy farm of farmers – increase of production capability of milk processing factory cannot be done since they are afraid of environmental impact that may happen to the neighboring community.

4) Whereas milk and dairy product consumption is not Thai culture, supply is more excessive than the demand; it is fixed by school milk scheme which is not sustainable solution of Thai dairy industry.

In preparing of dairy cooperative to deal with possible impact from changing dairy industry of Thailand, the researcher aims at building strength and sustainability to management process of the dairy cooperative in upper northern region of Thailand. As a result that development in both member and organization levels by relying on academic and financial support from the related organization might not help the dairy cooperative to achieve the success if the need of development does not occur within the organization, or so called “internal explosion”, the researcher hereby suggests guidelines in creating strength and sustainability to management process of dairy cooperative in upper northern Thailand both in member and organization levels as follows:

1. Raw milk processing

Milk processing from raw milk partially supplied by the members to pasteurized milk selling to school in neighboring area, or to other dairy products such as ice cream, milking yogurt and yogurt, etc. is one way increasing value of product since processed dairy products from raw milk is like good guarantee of the cooperative - it creates confidence to members in increasing numbers of milking dairy along with dairy farming development. Moreover, cooperative committees will have a chance to learn to do business which can be further developed in other kinds of businesses of the cooperative.

2. Dairy knowledge transfer to the new generation

Dairy farming occupation is stepping backward since it does not gain attention from the new generation in consuming milk. Therefore, related authorities must hurriedly build up knowledge to the new generation to realize the benefit of milk; this group will become a prospective customer for the farmers and will help Thai dairy business survive by laying the foundation of milk drinking.

3. Public relation of dairy farming occupation

As a result of decreasing numbers of dairy farmers, the cause of problem is arisen out of acknowledgement of outsiders towards dairy farming occupation that requires hardworking with no day off. The related authorities must create good attitude towards dairy farming occupation to juveniles especially who live in the area where dairy farm is located. This needs cooperation from many parties such as dairy farmers, dairy cooperatives, related government and private sectors as well as schools in the community. Creating good attitude towards dairy farming occupation can be done through many ways like arranging dairy farming exhibition, drinking milk campaign and observation of dairy farms in the community; all of these will bring about knowledge, understanding and good attitude regarding dairy farming among juveniles who can appreciate importance of dairy farming occupation. This plays one vital factor affecting to their decision to do dairy farming in the future.

4. Cooperation between dairy cooperative in the area

Recently, dairy cooperatives in upper northern region is likely to have a dependent management pattern; no cooperation between the cooperatives so there is no leverage to bargain with the private company especially, a processing factory and animal feed factory. With this reason, the cooperatives should group together to procure or provide the material sources from the network agricultural organizations such as Grass Group, Corn Group and Waste Processing Group to produce a roughage in feeding dairy cattle. For the instant animal feed, they may directly purchase it from the animal feed factory to reduce labor costs and time in managing dairy farm for its members.

Furthermore, cooperative integration will help create bargaining power or opportunity to express opinions in each meeting of the Dairy Cooperative of Thailand because the cooperative in upper northern region is smaller than the cooperative in other region when compared especially, in the middle region. Therefore cooperative integration in managing dairy industry in local area in the pattern of “group purchasing, group selling and group managing” is considered the real solution to this problem sustainably. Besides, this will develop management process of every dairy cooperative in upper northern region of Thailand to be more effective with better management.

5. Application of sufficiency economy philosophy

Sufficiency economy can be applied in management of dairy cooperatives because of its objectives in promoting the members to do a business in a form of interdependency by adhering to righteous morality and ethnics. This aims at a better economics and social status of its members and common people which are concordant with main essential of sufficiency economy. Creating this idea is a vital role of the committees to be used in management of the cooperative and transferred this idea to the members. The sufficiency economy can be applied to the management of the cooperative as follows:

1) Modesty: means spending what they have - not too less or more - and must not annoy themselves and others like abstemious investment of the cooperative, not trying to imitate other more potential cooperatives.

2) Rationality: means any reasonable decision, action and investment prior considered its consequence like decision making of the committees must be based upon good reason suitable for cooperative' status and for morality or common law.

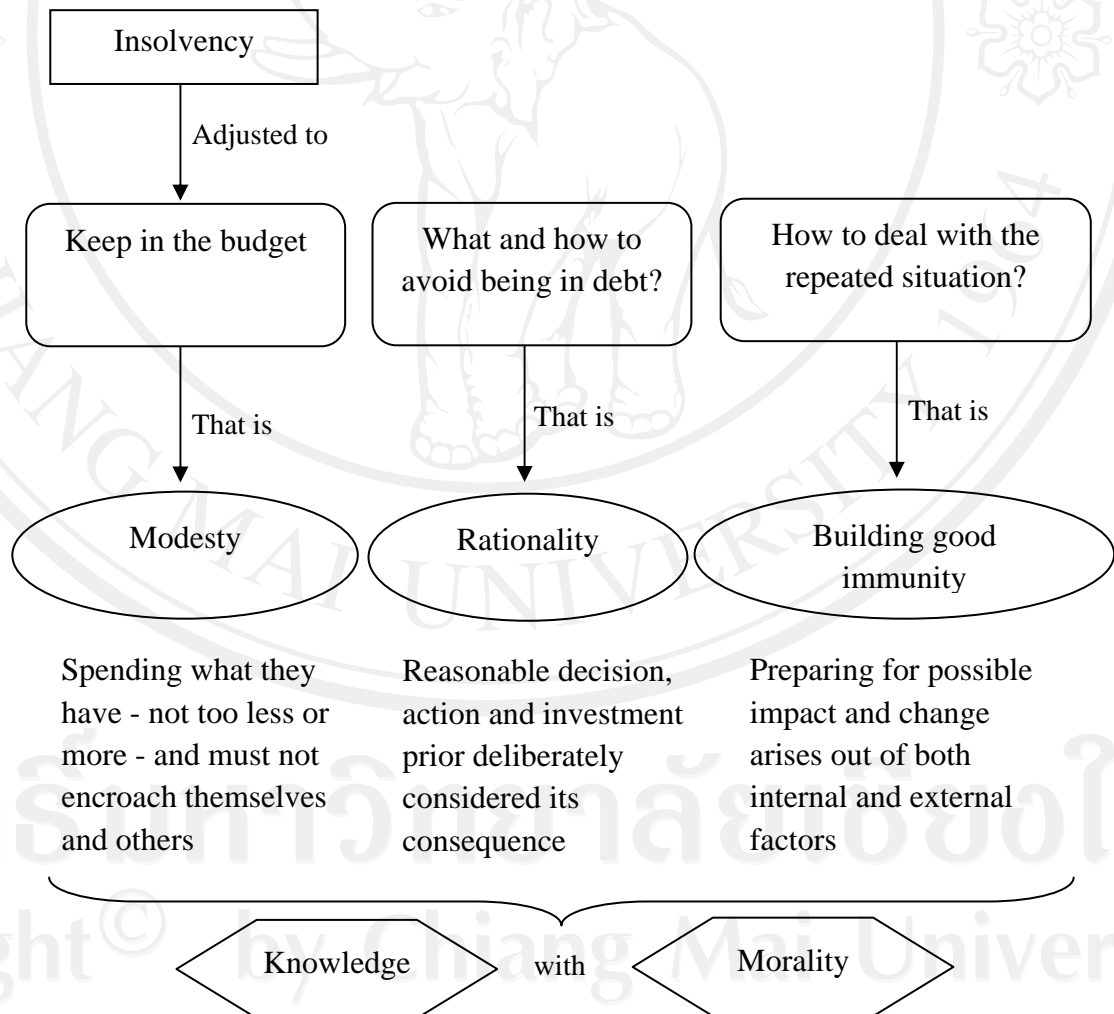
3) Building immunity: means being prepared to deal with possible impact and change arises out of both internal and external factors like reducing costs of the cooperative by seeking for secondary source of income, saving funds to be used when necessary, and keep the loan at lowest probability.

The committees also must have the following qualification in creating sufficiency to the cooperative:

1) Omniscience: means the committees must be all-around knowing in various academic fields that can be applied for resource allocation for the utmost interest, including using such knowledge with carefulness.

2) Morality: means the committees must have good morality both in thought, mind and act, including being honest, patient, and hardworking, and have the presence of mind whenever doing anything.

In compliance with the philosophy of sufficiency economy, it shares the quite similar method of the cooperative's; that mostly bases on morality, ethnic and supervision by adhering to the cooperative's ideology; that are self dependency and interdependency to achieve the goal of better quality of life in the society that honesty and peace shares among them. This can be explained in the figure 5.1 below.



Source: Rattana Potisuwan, 2005

Figure 5.1 Application of sufficiency economy philosophy

Another important aspect is harmony among parties who shares the same interest in dairy farming such as dairy farmers, dairy cooperatives, milk processing factories and government authorities; they have to cooperate to strengthen Thai dairy industry by rather aiming at common benefit than self benefit; not to take advantage from one another; determine to deliver the best quality product with a fair price. This is the path leading to strong and sustainable dairy farming occupation of Thai farmers and cooperatives.

5.5. Suggestion for further study

To study about dairy cooperative's management process that facilitates to development of dairy farmers and dairy cooperatives in upper northern Thailand covering more management process. Hereunder are suggestions of the further research:

1. Management and guidelines in developing the dairy cooperative to be more effective and productive should be studied in kinds of describing research and participatory action research: PAR.
2. Index of success of the farmers in doing dairy farm and successful cooperative's management should be categorized what contributes to success of dairy farmers and cooperatives.
3. Management process of the dairy cooperative that facilitates to development of dairy farming occupation of farmers in upper northern region should be studied in comparing with a result of research and to be adapted to develop the dairy cooperative so forth.
4. Capital and cost in operating dairy farms of farmers and capital in management of the cooperative including solutions of high production costs both in short and long term should be studied.
5. Solution of cooperation between dairy cooperatives in upper northern Thailand should also be studied.