A MODEL OF RESOURCES AND LOCAL WISDOMS CONSERVATION BY USING KNOWLEDGE MANAGEMENT OF ELDERLY PEOPLE IN MAE-SAI COMMUNITY

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Abstract - This research is a participatory action research. The objectives of the research are to: 1) explore Mae-Sai community context; 2) investigate problems in the conservation of resources and local wisdoms of Mae-Sai community; 3) study the pattern of knowledge management of the elders on resources and local wisdoms conservation for lifelong learning in Mae-Sai community.The research area covered 4 villages of Mae-Sai sub-district, Rong-Kwang district, Phrae province, Thailand. The data were collected from document, interviewing, focus group, learning stages and SWOT analysis brainstorming in community. The participants in the research learning process were the elderly, monks, volunteers for health care in community, the village committees, youths and government representatives numbering 60. The results revealed the four understanding elderly local wisdom among 1) the wisdom of indigenous herbal medicines which inherited the knowledge from ancestors from generation to generation 2)the wisdom of agricultural sufficiency 3) the wisdom of woven and 4) the wisdom of Lanna folk music. There are fifth phases for Mae-Sai elderly's KM patterns for resources and local wisdom conservation in Mae-Sai Community as followed: 1)The socialization phase by exchanging and sharing their knowledge in a form of networking, 2) The externalization by arranging Q&A stage about resources and local wisdom conservation from the best CoPs inside and outside of community, 3) The combination by using the knowledge distribution both inside and outside community through social network and Mae-Sai elderly local wisdom center, 4) The internalization phase by using PDCA circle in managing their activities, studying and developing from field trip study, and 5) The digitalization phase by using Big Data for dissemination information from all sectors so as to promote the quality of life of general public as well as to enhance the community's potential.

Index Terms - Knowledge Management, elderly people, resources and local wisdom conservation, lifelong learning.

I. INTRODUCTION

A. Statement of the Problems

In the 21st century, Thailand and other countries across to the world begin to enter a new current of change called knowledge society and knowledge-based economy which knowledge and innovation are main factors for development and production rather than capital and workforce.Many organizations put the importance on knowledge and an individual who is a creator and user knowledge. Besides, the 11th National Economic and Social Development Plan also put the importance on human resource development le leading to the sustainable lifelong learning society. Manual learning among people of different ages is promoted on the basis of existing resources and local wisdoms as valuable capital used for the promotion of stability in the national economic and social [1]. At the present, a number of elderlies in Thailand increase rapidly. It is expected that Thailand will rank 5th in a number of the elderlies in Asia in 2025 or 13.9 million [2]. However, if they are able to be well self-reliant with good livelihoods, they can be an important power of the population group.

Hence, the enhancement of potential of the elderlies in the community of each area by the conservations is useful. Also, it promotes the elderlies to be proud of them that can construct benefits to the community or society.

B. Objectives of the Study

1) To explore Mae-Sai community context.
2) To investigate problems in the conservation of resources and local wisdoms of Mae-Sai community.
3) To study the pattern of knowledge management of the elderlies on resources and local wisdoms conservation for lifelong learning in Mae-Sai community.

C. Significance of the study

Mae-Sai community has the elderly capital having diverse local wisdoms such as herbs, village doctor, exorcise misfortune, ritual ceremony, sufficiency economy, basketry, local music, etc. Besides, there are health networks i.e. health communicator and village volunteer in 4 villages of Mae-Sai sub-district. Both are important mechanism on the movement of health management in the community. However, Mae-Sai community still lack of the integration in the body of knowledge management of the elderlies. It is found that various local wisdoms accumulated mostly lack of transfer to new generations at a family, community and society level. Also, it lacks of body of knowledge

collection as an empirical system. This results in loss of local wisdoms or cultural roots and lack of sustainability. Therefore, to conserve resources and local wisdoms of the elderlies in Mae-Sai community the researchers agreed to conduct a study on "Knowledge Management of Elderly People for Resources and Local Wisdom Conservation in Mae-Sai community." This aimed to promote the elderlies in Mae-Sai community to have an opportunity to show their potential in body of knowledge to the youths or community based on their accumulated experience. Their knowledge transfer will be beneficial of the community and it can be regarded. as the construction of a quality society or lifelong learning. People of all sectors in the community participate in data seeking and collection, systematic body of knowledge keeping, which can be retrieved and disseminated for the benefits to the public.

II. METHOD

A. Scope of the study

This qualitative study employed a participatory action research.It investigated Mae-Sai community context, culture, elderly wisdoms and collected the body of knowledge/potential of the elderlies in the community which is beneficial to the community and public. Locale of the study covered 4 villages obtained by purposive sampling.

It was a case in the areas where there are a lot of varieties of herbal plants in Mae-Sai community, Phrae province which was shown in the figure1.People in Mae-Sai community had formed a group to establish the local wisdoms conservation center and they had work experience in the form of parties with both public and private agencies. Key informants were 60 people who were knowledgeable in the conservation of local resources and wisdoms, community leaders, monks, community representatives, the elderlies who were knowledgeable in herbal plants, basketry, sufficiency economy, local songs/music, etc., and personnel of local administrative organization. Personnel of public/private agencies and local people participated in brainstorming, implementation, and decision-making as a lifelong learning. Obtained body of knowledge in Mae-Sai community would be extended to other communities.

B. Research Instruments

Semi-structured interview schedule, species list, focus group discussion, and field trip recording form were used for data collection. The field trip recording form was of 3 parts: jotted notes, researcher inference notes, and field notes developed by the researchers under the condition and community context. A brainstorming venue was held for SWOT analysis on knowledge management in the conservation of local resources and wisdoms in Mae-Sai community in the past. This aimed to seek for a model of knowledge management for the conservation of local resources and wisdoms.

C. Data Collection

The qualitative methods were mainly employed for data collection.Techniques of data collection comprised community evidence / documentary analyses, community survey (walking), in-depth interview with local scholars, focus group discussion, observation, and informal discussion. During the interview and doing activities, the researchers observed and made a record about behaviors of information providers so that this data collection would be helpful in the understanding of behaviors of the information providers whether it was consistent with the interview or activities. Besides, a conversation technique was employed for checking correctness and validity the information or data between the researchers and the information providers [3].

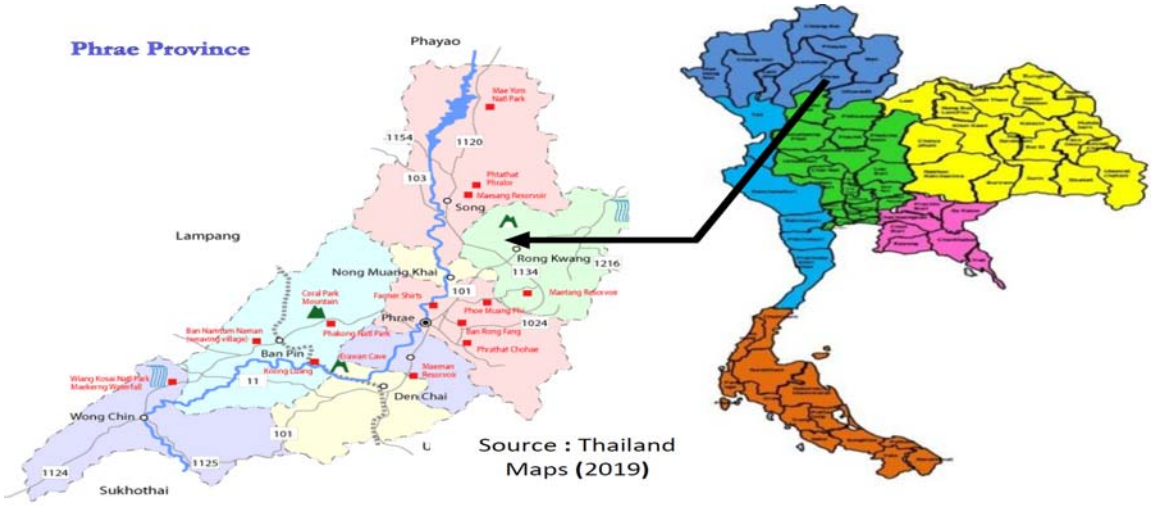


Figure 1 Research Area in Mae-Sai community, Rong-Kwang Districts, Phrae Province, Thailand

For data validity and reliability testing, the researchers employed triangulation technique for reference, connection, and conformity of data from various sources and different methods. This would nourish results of analyses be valid and reliable. Outcome reflection of the community venue after the conclusion of basic findings was also employed.

D. Data Analyses

Daily and weekly data analyses were conducted after data had been collected by using in-depth interview, focus group discussion, and observation. Obtained data were grouped and interpreted in accordance with content analysis for issue conclusion and an analysis of relationships between data groups [5].

III. RESULTS

The study discovered the following:

A. Mae-Sai community context

Mae-Sai community context was socially strong which could maintain traditionally physical condition. Most people there were engaged in agriculture and 90 percent were rice farmers, followed by corn growers, tobacco growers, and soybean growers. They also were agricultural hired workers for earning supplementary incomes such as rice harvest, corn harvest, forest product collecting, etc. Besides, it was found that the belief has influence on their livelihoods such as merit making, and donation. Regarding the conservation of resources and local wisdoms, it was found that Mae-Sai community has Mae-Sai temple as their spiritual center. They use northern dialect as the medium of communication. Besides, there was local wisdom about herbal plants for healing cancer, high blood pressure, and diabetes. There was conservation of local music which was played during important festivals such as New Year day and Songkran festival. Moreover, the president of the local administrative organization put the importance on the development of quality of life of local people as well as the conservation of local resources and wisdoms.

The predominant body of knowledge on wisdoms of the elderlies in Mae-Sai community includes: 1) wisdom on herbal plant growing for healing diseases such as cancer and hemorrhoids; 2) sufficiency agriculture focusing on the balance of livelihoods based on moderation, reasonable- ness, and good immunity; 3)wickerwork wisdom; and 4) local music wisdom.

B. Four main problems in the conservation of local resources and wisdom in Mae-Sai community

They were as followed:

1) Keeping data on wisdoms of the elderly, It was found that there was lack of the collection of body of knowledge or a specific skill on local wisdoms. Besides, there was lack of empirical wisdoms of the elderly and there was no transfer to new generations.
2) Methods of wisdom transfer and conservation, It was found that activities on wisdom transfer and conservation was not continual. The conservation and transfer were practiced during festivals only.
3) Personnel and local people, It was found that personnel and local people lack of special skills in the preparation of local curriculum for the occurrence of learning process for lifelong learning.
4) Public relations, It was found that there were inadequate media for public relations.

C. Elderly's KM patterns for resources and local wisdom conservation in Mae-Sai Community

There were 5 phases for elderly's KM patterns for resources and local wisdom conservation in Mae-Sai Community which consist with "SECID model" of Nonaka & Takeuchi [6],[7].

First phase is "Socialization" which share tacit knowledge through face-to-face communication or share experience. In a case of Mai-Sai's KM pattern use the exchanging and sharing their knowledge in a form of storytelling. This could be done through descendants in the community such as stories telling about herbal plants and wickerwork.

Second phase, is "Externalization" which focuses on tacit to explicit knowledge linking. It helps in creating new knowledge as tacit knowledge comes out of its boundary and become collective or crystallized knowledge. In Mae-Sai have the exchanging stages both of inside and outside of community. Moreover, there was knowledge sharing in brochures, a manual on local wisdoms of Mae-Sai community, and annual report for summarizing and improving in advance.

Third phase is "Combination" which transform from explicit knowledge to explicit knowledge. In this phase knowledge is also analyzed and organized. In Mae-Sai have KM patterns by using the knowledge distribution both inside and outside community through social media such as face book, you tube.

Fourth phase, is "Internalization" that is explicit knowledge is created using tacit knowledge and is shared across the organization became the learning spiral of knowledge creation. The case of Mae-Sai's KM model use PDCA circle in managing their activities, study and develop the Mae-Sai local wisdom learning center. This was done through brainstorming, planning, and assessment for the conservation of local resources and wisdoms.

Fifth phase, is "Digitallization" that is the technology of both public and private organization to improve their operations by using the technology to support many operational activities and to manage high-velocity and high-variety data, called Big Data. This is especially important for every community and every country that needs to create patterns for data

communication systems to serve the public interest by using Big Data for dissemination information from all sectors so as to promote the quality of life of general public as well as to enhance the country's potential. For example, the application of Geographic Information System (GIS) to follow up home-bound and bed-bound elders. These lead to able to access the health care system thoroughly and equality in society. So that, it improve elderly's quality of life to have a long life and not to be a burden to family and society.

DISCUSSION & CONCLUSION

The predominant elderly wisdom body of knowledge consisted of 4 aspects as follows: 1) producing local medicinal plants; 2) sufficiency agriculture; 3) wickerwork; and 4) local music. All of these reflected knowledge and capability of people in the community as well as the abundance of social capital and local wisdoms until it was the local body of knowledge. This conforms to an idea of Wasi (1987, cited in Chai-Aree, 2014)[3] which claimed that the intellectual capital and the natural resource capital are considered as a social capital assisting community development. This also conforms to a study of Na Thalang et al. (2003, cited in Chai-Aree, 2014)[3] which revealed that the dimension of local wisdom management is not only data keeping without community-based but people in the community must be promoted to realize the values of local wisdoms which is essential. According to the problems in the conservation local resources and wisdoms, the following were found: 1) elderly wisdom data keeping; 2) methods of elderly wisdom conservation and transfer; 3) local people and personnel; and 4) limitation of public relations.

Therefore, knowledge management is a method connecting man and knowledge. The raised process is learning exchange such as work experience between people the application of knowledge will cause new knowledge and those listening to new knowledge will apply it – from one person to another person so it is an endless process. Besides, there is no fixed method or a certain place. It is the process of intention between the provider and the receiver for knowledge movement leading to community development and sustainable knowledge management[8]. Due to problems in the conservation of local resources and wisdoms in Mae-Sai community, this leads to brainstorming and coordination in implementation, planning, and seeking for models of elderly wisdom knowledge management for lifelong learning of Mae-Sai community.Eventually 4 models were found based on "SECI model" of Nonaka & Takeuchi [6]. This comprised: 1) "Socialization" which share tacit knowledge through face-to-face communication or share experience. 2) "Externalization" which focuses on tacit to explicit knowledge linking. 3) "Combination" which transform from explicit knowledge to explicit knowledge, and 4)"Internalization" that is explicit knowledge is created using tacit knowledge and is shared across the organization became the learning spiral of knowledge creation. The case of Mae-Sai's KM model use PDCA circle in managing their activities, study and develop the Mae-Sai local wisdom learning center.This is through the coordination brainstorming, implementation, planning, and assessment for the conservation of local resources and wisdoms of Mae-Sai community. Like as the research published of (Phuntulee, 2009, 2010)[9],[10] launched that participatory learning process in community would lead to idea crystallizing by using knowledge based problem solution certainly, create participatory monitoring and evaluation process with related stakeholders in community, and help improve human well-being continuously in community by learning process together from every groups in community. This conforms to a study of Wanichritta [8] which proposed that knowledge management of each group or community should be consistent with operation and way of life of each group or community for the occurrence of Explicit knowledge transfer and reuse it becomes to be Tacit knowledge like SECI model of Nonaka (Ikujiro Nonaka) and Takeuchi. Moreover, technology plays an important role in many activities of daily life[7]. So that "Big Data" is the importance to improve the operations to keep in pace with a fast-moving environment by using the technology support many operational activities, to manage high variety data, and to create quality and credible information to make the policy with correctness and suitability for community context. This will be a basis for sustainable development based on self-management community and it will cause the connection of knowledge management in the province or other organizations as well.

RECOMMENDATIONS FOR COMMUNITY

There are some recommendation for community policy related to this, described as follows:1) It should have promotion on continual activity holding related to local wisdom transfer to create and awareness of good local wisdoms of the community.2) It should have the preparation of a pilot plan on local wisdom development and transfer (5 phases) contained in the community pilot plan.

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REFERENCES

[1] Office of the National Economic and Social Development Board: NESDB. (2014). The 11th National Economic and Social Development Plan. Retrieved from http://www.nesdb.go.th/ewt_news.php?nid=4153.

[2] J. Songchaiku. (2014). "Psychology of Aging". Retrieved from http://www.stou.ac.th/stoukc/elder/ main1_4.html.

[3] A. Chai-Aree. (2014). "A Model of Local Wisdom Knowledge Management on Banboo Shoot processing of Baan Phutoey Community, Kanchanaburi Province". Public Affairs journal, 4th year, 2nd issue (March – August), pp. 241-258.

[4] Thailand Maps. Retrieved from http://www.thailand.net/ index.html.

[5] F. Kohlbacher."The Use of Qualitative Content Analysis in Case Study Research *[*89 paragraphs*]"*. Forum Qualitative Sozialforschung /Forum: Qualitative Social Research., vol. 7, no.1, pp. 15-24, December 2005.

[6] Nonaka, I., & Takeuchi, H. (1995). The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation. New York: Oxford University Press.

[7] S. Nukprach, and K. Jamarik. (2016). " Business Intelligence(BI) in Big data era" NBTC Journal, Annual Review 2016, pp.553-563.

[8] T. Wanichritta. (2016). Knowledge Management in Community: A Case Study of Ecotourism Management by Participation of The Community, Samut Songkhram Province. Graduate School, Silpakorn University.

[9] S. Phuntulee. "The development of Huay Mai's community master plan by community participation, Area Based". Development Research Journal., vol 3, no.1, Jun 2009, pp. 47-56.

[10] S. Phuntulee, and W. Wanitchanont. (2010). Pattern of local health communication to promote holistic health of elderly people in Mae-Sai community with participatory action research. Chiang Mai: Maejo University.

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