

Chapter 1

Introduction

1.1 Significance of the Problem

Rapid changes in many economical and social elements of the world have led to the beginning of the living trend in a modern city life with new technology and direct access to the media. This trend has changed the ways of how people think. This especially brings local communities to the loss of local original traditional knowledge (TK). This research mainly studies the design and construction of a defensive protection system for the Thai local traditional knowledge to provide local communities a model of self management and protection from the misuse, and the misleading or loss of the community's traditional knowledge.

This novel literature begins with the world situation today which reflects to traditional knowledge in Thailand. Nowadays, the world is facing three challenges in: accelerating technology advancement; integration of the world's economical, cultural, trading, and information systems; and the growing relevance of Intellectual Property Rights (World Intellectual Property Organization [WIPO], 2001). The way of living has changed rapidly; therefore, the way that people use to think and do are so much different when compare to the past. In the past, people would commonly consider the Traditional knowledge (TK) of the community as their shared heritage. No one can claim to be the sole owner of this heritage. However, global changes have led some people to adopt a new attitude in appreciating the concept of ownership and sole benefits of the ownership (Convention on Biological Diversity, 1992). These attitudes have expanded to cover the usage of the traditional knowledge of the community. Accordingly, many indoctrinations and processes of right ownership over national community traditional knowledge have been developed. Nowadays, current disputes are caused by two main factors: 1) Misuse and misleading of the community's traditional knowledge which have led to the disrespect of the traditional

knowledge. 2) Exploitation of community traditional knowledge without receiving any permission from the community or sharing it with the community (WIPO, 2006).

Thailand is blessed with the community's traditional knowledge (language, food, classical music, arts, handicraft, agricultural wisdom, traditional medicine, ceremonies, belief, ritual and so on). Therefore there is a need to preserve it as the nation's precious resource. However, the diverse elements of the community's traditional knowledge have induced many disputes. There are three specific major disputes that should be mentioned.

Firstly, Thailand lacks a method for protection; therefore, the piracy of traditional knowledge has spread broadly. Such examples of dispute are the using of Kwao Krua, jasmine rice, and hermit body twist posture. This problem is partly due to the lack of intellectual property protection. The current protection law emphasizes on things/products which have been invented and innovated; especially those in the technology and industry circles. Thus, the law does not cover the community's traditional knowledge. In addition, there is no indoctrination and process of right ownership over this heritage. The community's traditional knowledge has its own unique public domain characteristics but not as a private one. Thai traditional knowledge has been accumulated by the community's willingness. The knowledge has existed for such a long time and should be a part of a public property. From a comprehensive study, it is apparent that Thailand does not have an appropriate law to handle these types of issue (Setsirote, & Donavanik, 2005).

Secondly, the way of life in Thailand has been rapidly changing. This brings some local communities to abandon to conserve their local cultural heritage. After World War II, there had been three waves of change in the Thai local community (Bager, 2003). The first wave began in the 1960s with the government's attempt to bring new technology to the local community. The second wave was in the 1970s when people from the local community migrated to find work in urban areas. The third wave was in the 1980s with the penetration of television into almost every rural household, and with an increasing number of rural children entering secondary education. Thus, these three waves have brought new attitudes, lifestyles, and modern beliefs to the local people within their community. With the continuation of

development, the way of life has changed immensely in the local community. This trend has led to the loss of local original culture. These days, the people prefer to live a modern city life with new technology and direct access to the media. The dignity and prestige of local culture have been diminished. Thus, some local communities have abandoned conservation of their local cultural heritage.

Thirdly, there is a lack of cultural management to conserve the traditional knowledge in the local community. Traditional knowledge is community capital; however, the communities still lack the process to systematically manage the cultural heritage. For example, local people use story telling as a method of transmitting traditional knowledge from generation to generation, especially within their family (Chiyasak, Rajchagool, Pinyosinwat, Kesmanee, Apakaro, & Yodmongkon, 2007). Telling stories requires good interpretation, but due to the changes, people might interpret and understand things differently based on their perceptions and experiences. This misunderstanding leads to a misuse of their traditional knowledge and a misleading of the knowledge itself on the part of the youth and the public.

With the current situations in Thailand, there are many different effects on local community's traditional knowledge. The next section addresses the justifications of the case study, to explain why this case is important and qualifies for this research.

1.2 Problem Statement: The Case of Mea-hiya Community

The research has been conducted in the Mea-hiya community which is an urban community with a population of 16,683 (Mea-hiya Municipality A, 2007) located at 15 kilometers in the southern area of Chiang Mai. The Mea-hiya community is the earliest known in Chiang Mai. The Mea-hiyas are the original Lawa tribe community with a long history dating back more than 700 years (Dokbuakeaw, Tovichakchikul & Jampavaul, 2007). Their long history has created a fertilization of traditional knowledge which is strongly connected to the cultural heritage of the community; moreover, to Chiang Mai history. Why has the Mea-hiya community been selected for the study? The justifications are narrated as followed:

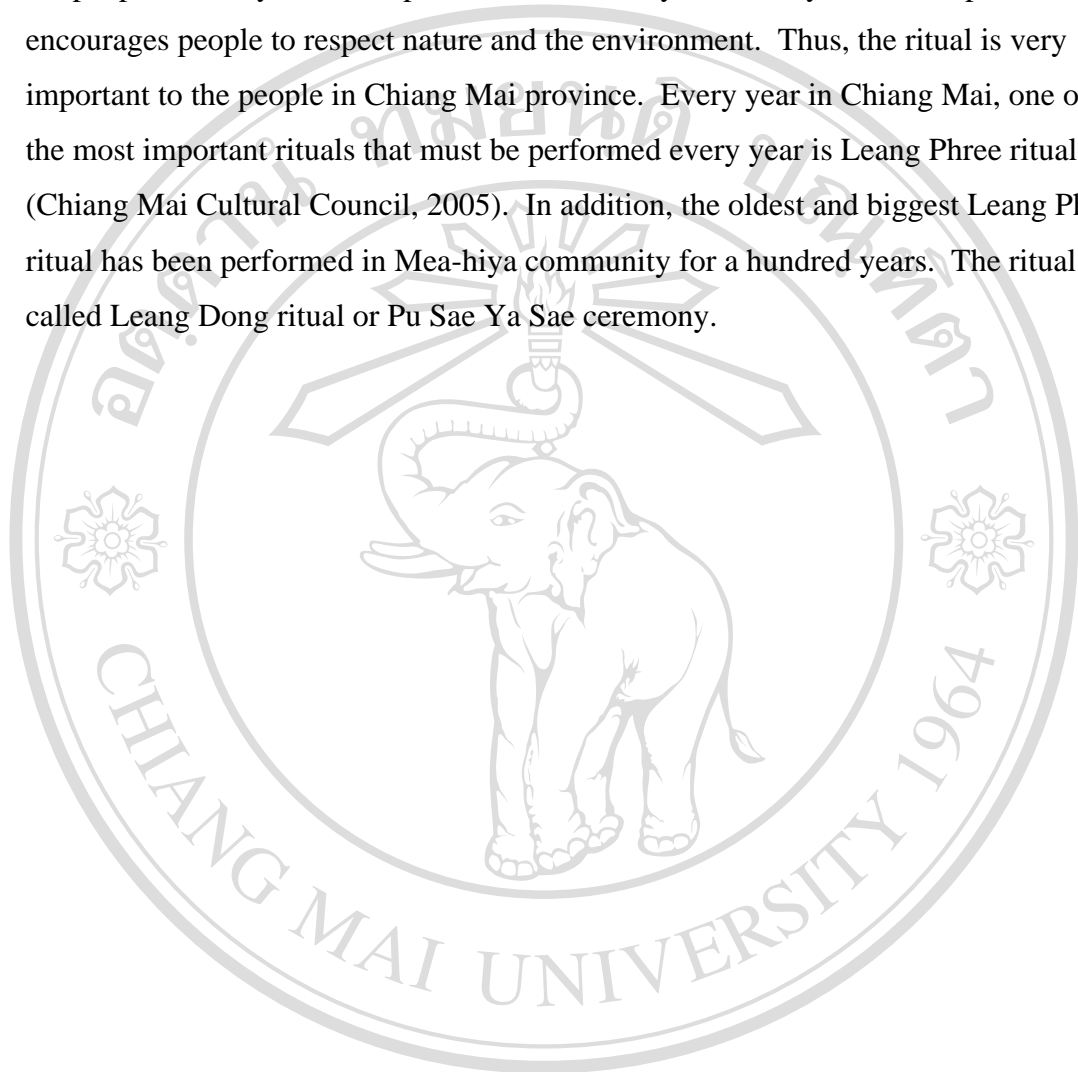
In this current age, the Mea-hiyas are facing the challenges of the changes in the economy and society. All the changes have affected the Mea-hiyas' traditional knowledge. Thus, the Mea-hiyas' traditional knowledge is in danger in many ways.

First, the Mea-hiya community has one of the most important Leang Phee rituals, called Leang Dong ritual (Pu Sae Ya Sae ceremony: a ritual of worship of spirits by providing food, beverage and objects). The Leang Dong is also the oldest Leang Phee ritual in Chiang Mai. Academics studied the Leang Dong (Pu Sae Ya Sae ceremony) and resolved that the ritual has been performed to predate the introduction of Chiang Mai and the association with the Lawas. After the Tai Yuen came and settled in Chiang Mai and dominated the Lawas the Tai Yuen took the ritual as an official ritual of the city. In the past the ruling prince of Chiang Mai would regularly support the ritual every year. The social message of Pu Sae Ya Sae ceremony represents symbolic unity between the original Lawa inhabitants and the later Thai settlers. The Lawa and the Thai have lived together and intermarried for centuries, sharing lands and cultural tradition. They are called Khon Muang (people and principalities of Northern Thailand). As the Thais became dominant, they did not seek to stamp out the Lawa rituals, but participated (as Buddhists) in the (very non-Buddhists) rites of an animal sacrifice to the spirits, in the world of Leang Dong ritual. This religious ceremony is a medley of Shamanism and Buddhism.

The Leang Phee ritual is one of the most important rituals of Chiang Mai. This research verified this statement by creating a ceremony and ritual table (Table 1.1) from the Chiang Mai Ceremony and Ritual text book (Chiang Mai Cultural Office, 2005) edited by Professor Manee Payomyong. In the Table, there are eleven major ceremonies and rituals during each year which are related to people's way of life in Chiang Mai. This table was presented to Pha Kru Adulsekitti (a Lanna cultural philosopher), who was the abbot of Thatklam Temple in Chiang Mai, to confirm and verify the table. It was revealed that Leang Phee was related to the people's beliefs and their way of life in most aspects (see Appendix 1).

The Table 1.1 verified that the Leang Phee ritual relates to northern Thai (Lanna) people's life style. Lanna people believe in spirits, hell, heaven and Buddhism. There is a house spirit, land spirit, city spirit, and ancestor spirit. The

people believe that the spirits provide good health to their family and a prosperous future for everyone. The purpose of the ritual is to build up the faith and prosperity of the people. Finally the ritual promotes community and family relationships and encourages people to respect nature and the environment. Thus, the ritual is very important to the people in Chiang Mai province. Every year in Chiang Mai, one of the most important rituals that must be performed every year is Leang Phee ritual (Chiang Mai Cultural Council, 2005). In addition, the oldest and biggest Leang Phee ritual has been performed in Mea-hiya community for a hundred years. The ritual is called Leang Dong ritual or Pu Sae Ya Sae ceremony.



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Table 1.1 Lanna & Chiang Mai traditions and rituals

| Ceremony/ Reason | Ritual | Tan Lua Pha Jow | Tan KowMai | Poy Luang | Poy Noi | Songkran | Leang Phee | Vai Pra Tat | Intakil | Kow Pansa | Slagapat | Yee Peng |
|---------------------------------|--------|--------------------|---------------|--------------|------------|----------|---------------|----------------|---------|--------------|----------|-------------|
| Believe in spirit | | | | | | ✓ | ✓ | | ✓ | | | |
| Believe in hell, earth & heaven | | | | | | ✓ | ✓ | | ✓ | | | ✓ |
| Related to Buddhism | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Related to prosperity | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| Build up the faith | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Promote a community relations | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Promote a family relations | | | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | |
| Related to ancestor | | | | | | ✓ | ✓ | | | | | ✓ |
| Related to season | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Respect natural and environment | | | ✓ | | | ✓ | ✓ | | | | | ✓ |
| Perform only in Lanna area | | ✓ | ✓ | ✓ | ✓ | | | ✓ | ✓ | | | |

Second, the Mea-hiya community is the only place that Leang Phee ritual or Leang Dong ritual (Pu Sae Ya Sae ceremony), still exists. In the past, the Leang Dong ritual, or Phu Sae Ya Sae ceremony was performed beneath the wooded planks of Doi Suthep and Doi Kham (Sethaphan, 1993). The first place at which the Pu Sae Ya Sae ceremony performed was Tindoi Village, Suthep community, at the foot of the Suthep Mountain. In the last three decades, the land has been developed as the Chiang Mai Zoo and Chiang Mai University, as well as apartments and houses. Many new settlers have come to live in this area. This has caused some major changes in the area. The foot of Suthep Mountain has become an educational, business and living zone. These changes have affected the local way of life tremendously, and led to the loss of the local original culture. The Phu Sae Ya Sae ceremony has vanished from this area permanently (Ganjanapan, 1986). However, at the foot of Doiklam Mountain at Mea-hiya community (the second place to perform Phu Sae Ya Sae ceremony) the Mea-hiyas still continue to perform the Pu Sae Ya Sae ceremony in June of each year. The Mea-hiyas believe that Phu Sae and Ya Sae are their ancestors and protect their community and Chiang Mai. In addition, with the stream of economic and social development, the same things which happened to the Suthep community are now being occurred to the Mea-hiya community. This might lead to the loss of the community traditional knowledge if there is no a systematic management of the community traditional knowledge.

Third, the Mea-hiya community experienced big controversial issues from society in 2006. In this rite of an animal sacrifice to the spirits of Pu Sae and Ya sae, a cow was needed. The cow must be the oldest that has never been mated. Its horns must be never been in a fight. Its hooves must have golden color. Thus, the cow must be the most perfect one the villagers can find. To find a perfect cow, a buffalo market was a perfect place to go. The villagers bought a cow from a buffalo market instead the official slaughterhouse. It was obvious that a buffalo market did not have animal health check. The cow may contain diseases. In the ritual day, the cow was killed in early morning, and later its' flesh and blood were eaten by the medium. That cow may spread disease to the medium. This unhealthful action was investigated by the Chiang Mai provincial health administration. The administration advised this community to take care of this issue properly if they wanted to do this ritual.

Moreover, in the year 2006, the human right people observed this ritual and claimed this action is animal torture. They criticized the ritual in negative way. The story caused a stir and was followed by some public heavy negative criticism. The public looked at the Mea-hiyas as the uncivilized. The negative criticism occurred due to misunderstanding, and unknowledgeable of the reason behind the ritual. The community has their own believes and reason to perform the ritual, but this knowledge had never discriminated to the public. The central government also came to investigate the incident and the community had to report in clarifying their action. This incident badly damaged the community's reputation. Some people in the community have started to lose their dignity and the prestige of their local culture. Sadly, they even abandoned the conservation of their local cultural heritage

Forth, the trend of living in a modern city life with new technology has led to the misuse, the misleading and loss of local original traditional knowledge in the Mea-hiya community. Since the community is very close to Chiang Mai city, the Mea-hiyas have rapidly developed their economic status. In 1990, a main road was constructed to pass through the center of the community. This caused some major changes in the area. All of a sudden, the Mea-hiyas became a part of the urban environment. Modern trade centers started selling a huge selection of household goods. The community became more dependent on the outside market and on outside knowledge. The wave of development has struck the Mea-hiyas continuously. There are many real estates projects in the community. New settlers started moving to live and work in the community. Today, 50% of the Mea-hiya's population is categorized as new settlers. Occupations change when urban growth draws people to urban work. Agriculture, which was considered the main profession, suddenly vanished. The way of thinking, behaving, and believing is so much different now when it is compared to the past. The wave of development has hit the Mea-hiyas continuously and effectively; therefore, the way of life in the Mea-hiya community has never been the same. Thus, some people in the community have abandoned to conserve their local cultural heritage.

Fifth, some cultural festival had been vanished from the community. For example, the Tan Loua Pha Joew festival which the villagers had to cut wood and

gave to the monks in the winter time to set fire and keep warm was vanished from the community because the ritual could not be adapted to fit in their way of life anymore. Since the stream of conserving environment, cutting down wood opposes to law and setting fire causes air pollution in Chiang Mai. These actions are banned from the Chiang Mai's society, and also directly effect to this festival. This causes a permanently loss of the festival from this community.

Sixth, like other Thai local communities, the Mea-hiya community does not have the local cultural management to conserve their traditional knowledge systematically. For example, the communities still have no process to transmit their traditional knowledge systematically. The local people use story telling as a method of transmitting traditional knowledge from generation to generation especially within their families. The traditional knowledge has been in existence for centuries, but has never been officially recorded. There are only stories told by elders and village philosophers. It is believed that the some of the traditional knowledge has been distorted from the original. The essence has changed, thus misleading the truth to the current generation. Changing the way to perform causes a misunderstanding of the meaning of the ritual. This might also lead others to follow in the wrong direction. Moreover, some local philosophers who know about the community's ritual, ceremony and traditional knowledge are now aging (Mrs. Buareav - 74 years old, Mr. Pravate - 67 years old, Mr. Ma 65 years old, Mr. Kasem 63 years old, and Mr. Younyut - 57 years old) and some of them are facing health problems. These people are the key cultural knowledge holders of their community. If there is still no system to make a traditional knowledge inventory from local philosophers and experts, the knowledge could vanish forever when these wise people are gone.

Seventh, the Mea-hiya community cultural council has flaws in managing traditional knowledge. The community has begun to reclaim their social space by creating a community organization in order to take control of their cultural heritage supported by the local government. The council objectives are to formulate policies and support cultural activities (Mea-hiya Cultural Council Const. Sec 6). From the observation and document study, there are flaws that should be mentioned. Firstly, most of the activities are conducted at annual cultural festivals and rituals (Mea-hiya

Municipality B, 2007). The council does not have the precise policies and strategies to provide a systematic way to manage their cultural heritage. Thus, the council is missing the opportunity to conserve, preserve, and protect their community knowledge. Second, the people in the community haven't really fully participated in managing their cultural activities. The local government has strong influence to manage cultural activities, because the government staff handles most of the jobs.

Summary

This section explores the justifications of the research.

First, the section reveals that Thailand is constantly developing economically and socially, which brings new attitudes, lifestyles, and modern beliefs that lead to the loss of local community original culture. Moreover, Thailand also lacks the methods and cultural management systems to protect and manage local traditional knowledge.

Second, the section reveals that Leang Dong ceremony was permanently lost from the Suthep community through economical and social development. In addition, the same things which did happen in the Suthep community are now being occurred to the Mea-hiya community. These problems must be taken into consideration for the conservation of the community traditional knowledge.

Third, this section reveals that the Mea-hiya community is one of the most typical communities in Chiang Mai. The community has specific characters that can be summarized as followed:

The Mea-hiyas were the first inhabitants and have the oldest and the most significant Leang Phee ritual of Chiang Mai history. The community is the only place that Leang Phee ritual or Leang Dong ritual still exists.

The community is experiencing the changes in economic and social sectors. The way of living, behaving and believing is so much different which lead to the misuse, the misleading and loss of its original traditional knowledge.

The community experienced serious controversial cultural issues because of misunderstanding and unknowledgeable of the Leang Dong ritual which destroyed the

community's reputation badly. The Mea- hiyas were looked at as the uncivilized because the reason behind the ritual had never discriminated to the public.

The community cultural council has flaws in managing traditional knowledge. It does not have local cultural management systematically to conserve, transmit and protect the community's traditional knowledge.

With all specific characters and controversy issues in cultural domain, there are reasons to select the Mea-hiya community as our research for a case study. The Mea-hiya represents a good example of a rural community that is transformed to be an urban community with the issues of conserving its' traditional knowledge. The Mea-hiya community's traditional knowledge should not vanish as it did in the Suthep community.

For these reasons, it is essential to study the design and construction of a defensive protection system for Thai traditional knowledge that will provide a first step of self protection to the local community. This research seeks to develop a defensive protection system for managing local traditional knowledge. Theories on intellectual capital, knowledge management process, risk management, sustainable development, UNESCO, and WIPO frameworks will be applied in the study to obtain a body of knowledge that is analyzed and synthesized to form a system. The study also includes a strategy of conserving, protecting, transmitting, educating and disseminating traditional knowledge to the community to help them be aware and alert towards protecting traditional knowledge. The research findings should serve as a guideline for the creation of effective management and protection system to conserve, protect and transmit local community traditional knowledge at the local level.

1.3 Research Objectives

1. To establish a model of a defensive protection system for traditional knowledge by applying Knowledge Management approach, Intellectual Capital Concept, risk assessment, system thinking, NSDS, UNESCO and WIPO frameworks.

2. To study how to identify the Intellectual Capital of community traditional knowledge.
3. To select proper strategy to manage and protect local community traditional knowledge.

1.4 Research Questions

1. How to design a management method in order to identify the intellectual capital and to protect traditional knowledge of a local community?
2. What is the appropriate TK defensive protection system for a Thai community by applying the Intellectual Capital Concept, Knowledge Management approach NSDS, UNESCO and WIPO frameworks?
3. What are proper strategies to manage and protect local community traditional knowledge so they survive?
4. How to encourage the community to be aware and alert to protect TK?

1.5 Definitions

Traditional knowledge (TK): refers to knowledge, capability, experience and wisdom of local communities embodying traditional lifestyles that have been accumulated, existed, survived or developed for generations in accordance with ecological systems, natural surroundings, society and cultures

Intellectual capital: the sum of an organization's knowledge, that contributes to an improved competitive position of the organization by adding value to the defined key stakeholders.

Human capital: the collective capabilities of the employees' competence. This asset includes experience, skills, and know-how of the employees.

Structural capital: infrastructure that organizations develop to commercialize their human capital. It includes both direct and indirect support, and physical and intangible elements.

Relational capital: the relationship between an organization and its stakeholders.

Stakeholder: a person, group, organization, or system who affecting or affected by, an organization's actions

Key success factor: a list of must-do action to achieve strategic goals

Indicator: A set of indicators for measuring the process of quantifying and qualifying the dimensions of action or performance of the key success factors.

Defensive protection system: the system that endeavors to ensure the widest possible participation of communities and individuals that create, maintain and transmit traditional knowledge, and to involve them actively and equally in its management, including disclosure of information about patent registration, setting-up of traditional knowledge database, and amendment of patent laws.

Leang Phee: a ritual to pay respect to spirits by providing food, beverage, and objects.

Leang Dong: one type of the Leang Phee rituals. The Mea-hiyas pay respect to Pu Sae and Ya Sae spirits with a sacrificed buffalo, food and beverage for the spirits at the foot of Dio Klam Mountain in June of every year

1.6 Novel Contribution

The novel contribution of the research can be expressed as followed:

- In the cultural management context: The research proposes a development process and a defensive protection system that provides a new perspective on managing and protecting the local community's traditional knowledge by using international protocols. The defensive protection system provides a first step of self protection for the local community. The system complies with the objectives of Thailand National Sustainable Development, UNESCO and WIPO, thus making this system standard, practical and sustainable.
- In the intellectual capital management context: the intellectual capital process is adapted and modified for cultural context (from the four steps model into a new eight steps model) to be used beyond its original approach in the business sector. This is an original approach where an intellectual capital system of

creating a defensive protection system to manage and protect the local community's traditional knowledge (a very non-business approach) has been designed in Thailand. The community can find their cultural capitals and manage them. The real added value is to provide a new perspective of intellectual capital management in a cultural domain.

- In the Knowledge Management context: the process extremely requires participation of the stakeholders which makes it possible for the decision support system in the community to manage cultural issues. The process generates new ideas of conservation strategies or other new knowledge by the stakeholders. The decisions can respond directly to the cultural situations because they are grounded by the stakeholders' knowledge and experiences.
- In the risk assessment context: the assessment process is comprehensive and rigorous since it takes key indicators to attribute into the community's monitor index which supports decisions in the risk contingency plan.
- In the systems thinking context: the cultural management and protection of the community can be seen in a holistic perspective. All sub-systems and its relationships can be managed and encouraged through a learning process and respond to extend changes. It can also solve problems of traditional knowledge in a holistic system manner for the local community.

1.7 Organization of the thesis

This dissertation consists of five chapters. The structure of the paper is as follows: the first chapter presents the introduction, problem statement and the objectives of the study. A literature review on traditional knowledge, intellectual capital, and other necessary materials are presented in the second chapter. The third chapter presents the methodology and data sources. The fourth chapter presents the research results and analysis of the research. The fifth section presents a discussion of the findings and conclusions.