

CHAPTER 3

RESEARCH METHODOLOGY

In order to meet the key objective of the study, to develop Knowledge Management organization model of Thai community business. The concept of research design is based on research assumptions as follows:

1. A high performance organization should have well-performed Knowledge Management.
2. Thai community business has its own specific characteristics.
3. The different community business forms (group producer, sole owner, SMEs) should have different KM organization model.
4. In order to manage Thai community business, it should have its own particular strategies which are not the same as other kinds of business.

3.1 Research Process

According to KM activities within SMEs tend to happen in an informal operation within organization (Nunes, Annansingh, Eaglestone, & Wakefield, 2006), Therefore the research design is shown in the following table:

Table 3.1 Research Process

Procedure	Framework	Techniques & Tools	Output
1. Identifying high performance community business	- EFQM, Malcolm Baldrige, Thai community business assessment, and competitiveness of SMEs	1. Model analysis 2. Criteria set up 3. Expert reviewed 4. Criteria adjusted	1. 17 criteria for choosing high performance organization 2. High performance community businesses
2. Establishing definition of KM organization dimensions, sub-dimensions, and ranges	- KM organization model (EKMF, 2000)	1. Model study 2. Literature review	1. Definition of KM organization dimensions, sub-dimensions, and ranges
3. Determining assessment criteria of KM organization dimensions, sub-dimensions, and ranges	- KM organization model (EKMF, 2000)	1. Model study 2. Literature review	1. Assessment criteria of KM organization dimensions, sub-dimensions, and ranges
4. Developing KM organization model of Thai community business	1. KM organization model (EKMF, 2000) 2. Definition of KM organization dimensions, sub-dimensions, and ranges 3. Assessment criteria of KM organization dimensions, sub-dimensions, and ranges 4. Interview questions	1. In-depth interview owner or leader 2. Conversation with staff 3. Participant observation 4. Document Analysis	1. Thai community business characteristics affecting the Thai community business KM 2. KM organization model of Thai community business
5. Developing strategy to manage Thai community business	- KM organization model of Thai community business	Analyzed by resource-based theory	Strategies to manage Thai community business

This chapter explains how field data was obtained for the study. A total of 8 high performance community businesses in Chiang Mai were selected for this study. This chapter is divided into 3 sections:

In section 3.1.1, provides research design that composes of three steps

- 1) Identifying high performance community business or organization samples
- 2) Establishing definition of KM organization dimensions, sub-dimensions and ranges
- 3) Determining assessment criteria of KM organization dimensions, sub-dimensions and ranges

In section 3.2, provides data collection that illustrates how the data collection instrument was developed, actual data collection through multiple methodologies (in-depth interview the owner or leader of an organization, participant observation, conversation with staff, and document analysis).

Section 3.3 describes how data is analyzed by transcription, coding, and content analysis strategy respectively.

3.1.1 Identifying High Performance Community Business or Organization Samples

The basic assumptions in identifying organization samples are a high performance organization should have well-performed KM and KM activities within SMEs tend to happen in an informal operation within organization. Therefore, we have to initially specify the characteristics of high performance organizations in Thai community business.

From the review of many previous conducted research and literature, it is apparent that organizations that have achieved high performance status have spread across the globe, this success can be seen through Malcolm Baldrige National Quality Award (MBNQA) and European Foundation of Quality Management (EFQM). Currently, KM can be found as one part of business excellence models and the significant roles of KM are managing people and information. Therefore, KM strategy must be aligned with the business vision and management. Despite their share of success there are many distinctions that sets them apart. Those points of difference lies in the criteria presented stating that these models would better be suitable for a

larger organization. It has also shown that these organizations have been gathering data and recording its performance along with the following a guidelines of a working model provided by Thailand's ministry of agriculture for the intended purposes of documenting the success rate community businesses and identify high performance organization from integrating all 3 models and from the review of various related literature on competitiveness of small and medium enterprises.

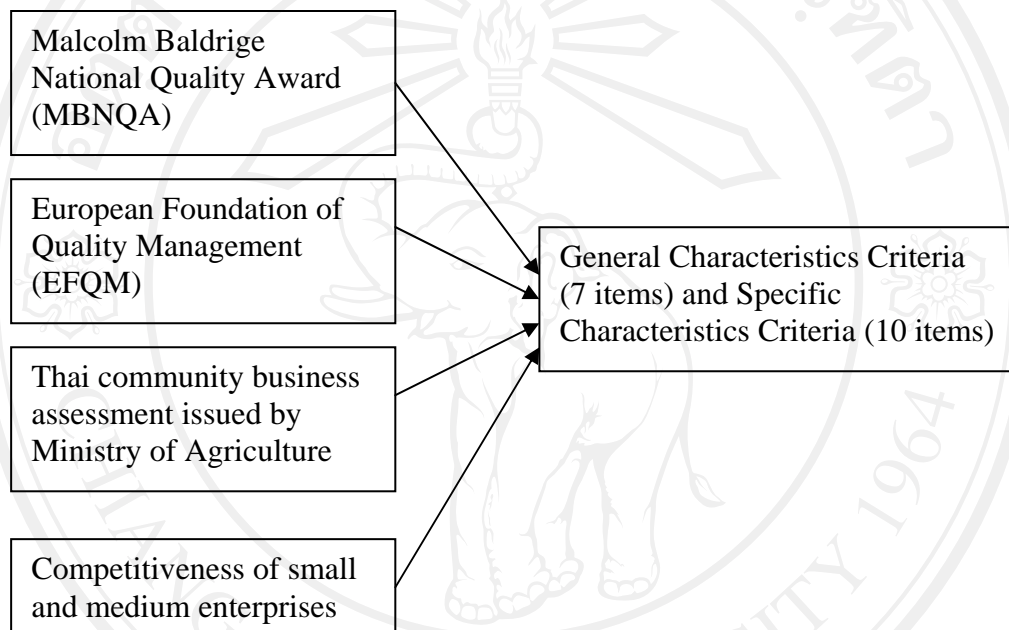


Figure 3.1 Framework of Identifying High Performance Community Business

Criteria in determining samples have been generated from formation of small and medium enterprises' (SMEs) core competency. As asserted by Smallbone, Leigh, & North (1995), who studied the characteristics and strategies of high growth SMEs, find that a high growth rate was the most important factor in identifying business performance. Characteristics of effective performance and high growth firms have been analyzed by three criteria, which were rapid growth, significant size, and financial stability, have been identified. Rapid growth meant more than doubling sales turnover during the 1979-90 periods, significant size meant reaching a minimum sales turnover of £0.5m, and financial stability meant consistent profitability since the late 1980s.

Man, Lua, & Chan (2002); Jones & Tilley (2003) conclude that the competitiveness of small and medium enterprises that the competitiveness of SMEs consisted of innovative ability and quality ability. The innovative ability was the ability in developing new products, new services, new processes, or new way of working (Laforet & Tann, 2006). The quality ability was the ability in maintaining or achieving high quality in products or services that lead to a good image and reputation of an organization, which was necessary for the achievement in domestic and international markets. It is found by Ghobadian & Gallear (1996) that SMEs should maintain their competitiveness by delivering high quality products and services consistently, since this strategy could sustain market share and profitability. Many researches indicated that quality and profitability were positively correlated. In short-term, superior quality could increase profitability through premium pricing. In long-term, superior or improving quality should result in increased market share. As Tannock, Krasachol, & Ruangpermpool (2002) conclude that quality management was a significant strategy for Thai SMEs. Most of them also focused on international quality standard such as ISO 9000, as it is now demanded in every export market. In order to achieve in TQM development, most of the organizations from the case study have accomplished several basic quality activities such as 5S, Quality Control Circle (QCC), 7QC tools.

Subsequently, we proposed several criteria in determining high performance community business. Community businesses were considered as high performance organizations as long as their performances could keep up with all of the following general characteristics:

General Characteristics Criteria	Remark
1) Producing handicraft product	Handicraft is Chiang Mai's potential business.
2) Firm aged more than 5 years	
3) Employees more than 15 persons	
4) Attained at least 4 stars scholar	Thailand has evaluated the Community business and rewarded the winner "champion scholar or star" from 5 to 1 stars depending on their compatibility with 4 criteria. 1) exportable and has brand equity 2) continuous operations and consistent quality 3) standardization and customer satisfaction 4) story of product
5) Registered at Department of Community Development, Thailand	
6) Has own brand	
7) Exportable	

Table 3.2 General Characteristics Criteria of High Performance Community Business

In addition, their performances should also keep up with at least 8 items from the following specific characteristics:

Specific Characteristics Criteria	Remark
1) More than 15% of sales turnover increased from the last three years	
2) Sales turnover more than 200,000 baht per year	
3) Retained consistent profitability within three years	
4) Launched new products more than four items in the last three years	
5) Achieved innovation or design prizes in the last three years	
6) Implemented process improvement or introduced new working approach in the last three years	
7) Invested in machinery equipments or information technology in the last three years	
8) Achieved quality awards or certificates in the last three years	Such as ISO or Thailand community product standardization (Thailand community product standardization is the standard certified by Department of Industrial Promotion)
9) Customer complaint or defects reduced in the last three years	
10) Implemented quality improvement activities	Such as 5S, QCC or 7QC tools

Table 3.3 Specific Characteristics Criteria of High Performance Community Business

All of the 17 criteria were reviewed by two experts in community business, A. Teerawat (Head of community promotion in Chiang Mai, Thailand) and S. Harnpakdeesakul (Community business developer), who are both currently working

in Thailand's Department of community development. Therefore, these criteria will be appropriated and in accordance with the current community business situation.

3.1.2 Establishing Definition KM Organization Dimensions, Sub-dimensions and Ranges for Thai community business

In this phase, the following 4 dimensions of KM organization, which has been modified by EKMF (2000) from European Knowledge Management Forum 2000 framework, were initiated. EKMF framework is chosen for reasons: 1) This framework has been recognized and acknowledged throughout the world, as it is mutually accomplished by several famous European Institutions and Associations and 2) This study aims to align KM organization model of Thai community business with KM organization model of EKMF's result.

Table 3.4 Knowledge Management Organization dimensions, sub-dimension, and ranges

1. Structure	Range		
Hierarchical levels			
Number	Many	Middle	Few
Relevance	High	Middle	Low
Decision right	Centralized	Empowerment	Decentralized
Application level	Company	Business unit	Project
“K” roles	Definite	Not definite	

Table 3.4 (Cont.) Knowledge Management Organization dimensions, sub-dimension, and ranges

2. Culture	Range		
Proficiency			
Relevance	High	Middle	Low
Applicability	Self-sufficient	Middle	Systemic
Commitment	High	Middle	Low
Behavior	Cooperation	Both	Competition

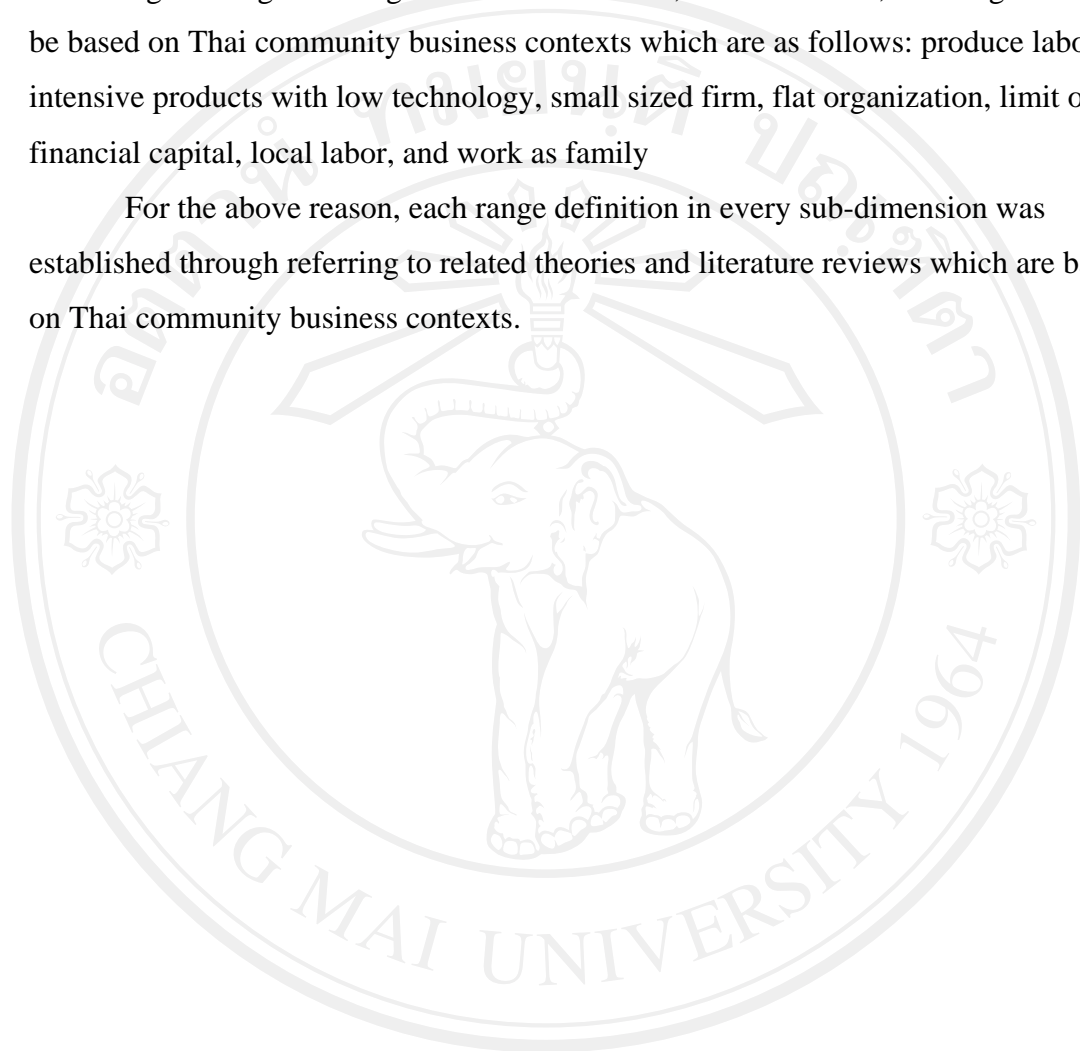
3. Systems	Range			
Learning Mechanism	Doing again	Minimizing effort	Recombining	Continuous shaping
Coordination Mechanism	Rules	Plan	Mutual adjustment	Group coordination
Assessment Mechanism	Role based		Performance based	Person based
Use of ICT				
Relevance	High		Low	
Purpose	Creation	Sharing	Application	

4. KM Strategy	Range		
Style of direction	Designer	Steward	Teacher
Organization aim	Shareholder oriented	Employee oriented	Customer oriented
KM process Emphasized	Creation	Sharing	Application
Knowledge			
Type	Tacit	Both	Explicit
Source	Internal	Both	External

Source: KM organization: Structuring and reflections, 2000

To meet Thai community business contexts which are initiated by group of people in community gathering, sole owner or even SMEs. The definition of Knowledge Management organization dimensions, sub-dimension, and ranges should be based on Thai community business contexts which are as follows: produce labor-intensive products with low technology, small sized firm, flat organization, limit of financial capital, local labor, and work as family

For the above reason, each range definition in every sub-dimension was established through referring to related theories and literature reviews which are based on Thai community business contexts.



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Table 3.5 Definition of Knowledge Management Organization dimensions, sub-dimension, and ranges: Structure

1. Structure			
Hierarchical levels	Range		
Number	<p>Many</p> <p>An organization in which the hierarchy has many levels or tall organization/ tall structure.</p>	<p>Middle</p> <p>An organization that has moderate number of level. Not too tall or too flat organization.</p>	<p>Few</p> <p>An organization that has few levels in its hierarchy or flat organization/ flat structure.</p>
Relevance	<p>High</p> <p>The high relevance of hierarchy level in organization.</p>	<p>Middle</p> <p>The medium relevance of hierarchy level in organization.</p>	<p>Low</p> <p>The low relevance of hierarchy level in organization.</p>
Decision right	<p>Centralized</p> <p>The process by which the activities of an organization, particularly those regarding decision-making, become concentrated within a particular location and/or group.</p>	<p>Empowerment</p> <p>Empowerment is the process of giving employees at all levels in the organization the authority to make decisions, be responsible for their outcomes, improve quality, and cut costs.</p>	<p>Decentralized</p> <p>The policy of delegating decision-making authority throughout an organization, relatively away from a central authority. Some features of a decentralized organization are fewer level to the organizational structure, wider span of control, and a bottom-to-top flow of decision-effecting ideas.</p>
Application level	<p>Company</p> <p>This kind of structure is appropriated to apply to company level.</p>	<p>Business unit</p> <p>This kind of structure is appropriated to apply to business unit level.</p>	<p>Project</p> <p>This kind of structure is appropriated to apply to project level.</p>
“K” roles	<p>Definite</p> <p>There is usually a one-to-one correspondence between a person and a task. Each person is individually specialized and knows exactly what he or she is responsible for.</p>	<p>Not definite</p> <p>Roles are loosely defined- people perform various tasks and continually develop skills in new-activities.</p>	

Table 3.6 Definition of Knowledge Management Organization dimensions, sub-dimension, and ranges: Culture

2. Culture	Range		
Proficiency			
Relevance	<p style="text-align: center;">High</p> <p>High respect or recognize the high perform or high ability persons</p>	<p style="text-align: center;">Middle</p> <p>Medium respect or recognize the high perform or high ability persons</p>	<p style="text-align: center;">Low</p> <p>Low/ no respect or recognize the high perform or high ability persons</p>
Applicability	<p style="text-align: center;">Self-sufficient</p> <p>Able to provide for oneself independently of others and doing job for survival</p>	<p style="text-align: center;">Middle</p> <p>Optimal between self-sufficient and systemic</p>	<p style="text-align: center;">Systemic</p> <p>Working by using a planned, ordered and procedure with clearly systems</p>
Commitment	<p style="text-align: center;">High</p> <p>High level of promise or agreement of people in organization to do something</p>	<p style="text-align: center;">Middle</p> <p>Medium level of promise or agreement of people in organization to do something</p>	<p style="text-align: center;">Low</p> <p>Low level or no of promise or agreement of people in organization to do something</p>
Behavior	<p style="text-align: center;">Cooperation</p> <p>Active help from people in organization by mutually beneficial interaction among each others to create maximal value.</p>	<p style="text-align: center;">Both</p> <p>It occurs both cooperation and competition in organization's behavior.</p>	<p style="text-align: center;">Competition</p> <p>No have active help from people in organization. The people are conflict, opposition, rivalry and battling.</p>
Atmosphere	<p style="text-align: center;">Political</p> <p>Activities taken within organizations to acquire, develop, and use power and other resources to obtain one's preferred outcomes in a situation in which there is uncertainly or disagreement about choices.</p>	<p style="text-align: center;">Both</p> <p>It occurs both political and ideological in organization's atmosphere.</p>	<p style="text-align: center;">Ideological</p> <p>Body of beliefs or principles belonging to an individual or group</p>

Table 3.7 Definition of Knowledge Management Organization dimensions, sub-dimension, and ranges: Systems

3. Systems	Range			
Learning Mechanism	<p>Doing again To repeat something for correcting</p>	<p>Minimizing effort Cutting down the amount of effort required to perform tasks</p>	<p>Recombining To join together again at the second time</p>	<p>Continuous shaping Continuous doing until perfectly</p>
Coordination Mechanism	<p>Rules To make different people work together by following the command very strictly</p>	<p>Plan To make different people work together by following the command</p>	<p>Mutual adjustment To make different people work together by being beneficial to both parties</p>	<p>Group coordination To make different people work together among members in organization</p>
Assessment Mechanism	<p>Role based The assessment is based on what they are doing.</p>	<p>Performance based The assessment is based on judgment against the standard.</p>	<p>Person based The assessment is based on person judgment.</p>	
Use of ICT				
Relevance	<p>High High level of ICT usage in organization</p>		<p>Low Low level of ICT usage in organization</p>	
Purpose	<p>Creation ICT usage in organization for the purpose of creating new things (knowledge or innovation).</p>	<p>Sharing ICT usage in organization for the purpose of sharing information.</p>	<p>Application ICT usage in organization for the purpose of carrying out routine job.</p>	

Table 3.8 Definition of Knowledge Management Organization dimensions, sub-dimension, and ranges: KM Strategy

4. KM Strategy	Range		
Style of direction	<p style="text-align: center;">Designer</p> <p>The leader act as designer who initiates and design policies, strategies and systems, design integration task and learning process for organization.</p>	<p style="text-align: center;">Steward</p> <p>The leader act as steward who is always more consistent with human nature, tries to build a value based, vision driven environment. Leader has to be responsible without possessiveness.</p>	<p style="text-align: center;">Teacher</p> <p>The leader act as teacher who helps people achieve more accurate, insightful and empowering views of reality, fostering learning for everyone, not about teaching people how to achieve their vision. Help people throughout the organization develop systemic understanding.</p>
Organization aim	<p style="text-align: center;">Shareholder oriented</p> <p>The organization aim is focused on shareholder satisfaction.</p>	<p style="text-align: center;">Employee oriented</p> <p>The organization aim is focused on employee satisfaction (internal organization focused).</p>	<p style="text-align: center;">Customer oriented</p> <p>The organization aim is focused on customer satisfaction.</p>
KM process Emphasized	<p style="text-align: center;">Creation</p> <p>The important KM process is knowledge creation.</p>	<p style="text-align: center;">Sharing</p> <p>The important KM process is knowledge sharing.</p>	<p style="text-align: center;">Application</p> <p>The important KM process is working for job completed.</p>
Knowledge			
Type	<p style="text-align: center;">Tacit</p> <p>Tacit knowledge is very important for organization rather than explicit knowledge.</p>	<p style="text-align: center;">Both</p> <p>Both tacit and explicit knowledge are important for organization.</p>	<p style="text-align: center;">Explicit</p> <p>Explicit knowledge is very important for organization rather than tacit knowledge.</p>
Source	<p style="text-align: center;">Internal</p> <p>The important source of knowledge comes from internal organization.</p>	<p style="text-align: center;">Both</p> <p>Both internal and external sources of knowledge are important for organizations.</p>	<p style="text-align: center;">External</p> <p>The important source of knowledge comes from external organization.</p>

3.1.3 Determining Assessment Criteria of KM organization Dimensions, Sub-dimensions and Ranges

After establishing definition for each range, criteria for examining in every aspect has been created subsequently, in order to use as a guideline in building semi-structure questionnaire for collecting data.

Criteria for examining and assessing each aspect have been gathered from related theories and literature.

(Please see appendix A for assessment criteria of Knowledge Management organization dimensions, sub-dimension, and ranges: Structure, Culture, Systems, and KM Strategy)

3.2 Data Collection

This study aims to investigate Knowledge Management aspects in an informal organization of Thai community business then develop a Knowledge Management organization model. According to Nunes, Annansingh, Eaglestone, & Wakefield (2006) state that KM activities within SMEs tend to happen in an informal operation within organization. Therefore, qualitative research is the major approach in this study, as it is essential to the nature of things. It demonstrates what, how, when, and where of things. Meanwhile, it refers to the meanings, concepts, definitions, characteristics, metaphors, symbols and description of things (Berg, 2004). Carson, Gilmore, Perry, & Gronhaug (2001) explain that the characteristics of qualitative research provided flexibility and suitability for use, because it could capture the complex and multidimensional decision making patterns in organization, especially the research in an organizational or business context. Therefore, obtaining the characteristics of qualitative research took much longer, required greater clarity of goals during design stages, and could not be analyzed by computer software programs. In the mean time, someone suggested that qualitative research is unsystematic and has the ability to be reproduced by researcher but nowadays, this methodology has been acknowledged widely among the world of academic (Denzin & Lincoln, 2000).

Data collection attempted to address all possible aspects related to the constructs that could be garnered from outsider basic information (secondary data from publications, printed materials, database and reports); and to develop a Knowledge Management organization model from primary data through interviews, conversation and participant observation.

3.2.1 Data Collection Instrument: Interview Questions Development

Interview questions have been developed from KM organization's definitions (from table 3.5 to 3.8) along with assessment criteria needed in establishing KM organization model. Questions, which were developed in 4 dimensions, can be categorized in the semi-structured interview type, which Berg (2004), reviewed the characteristics of this semi-structured interview as "more or less structured, questions maybe reordered during the interview, wording of questions flexible, level of

language may be adjusted, interviewer may answer questions and make clarifications, interviewer may add or delete probes to interview between subsequent subjects”.

(Interview questions is shown in Appendix B)

3.2.2 Actual Data Collection

Data should be planned to collect through 4 methods, via in-depth interview owner or leader, participant observation, conversation with staff, and document analysis in order to triangulate data. Triangulation is restricted to the use of multiple data-gathering techniques to investigate the same phenomenon (Denzin, 1970). The purpose of triangulation is for mutual confirmation of measures and validation of finding (Berg, 2004). Several management studies have now used triangulation to resolve difficulties in interpretation and theory building (Smith, 1975).

This research uses triangulation for 1) completeness, which recognizes that following McGrath (1982), any single research method chosen will produce a mistaken conclusion. It is, therefore, necessary to obtain confirmation evidence from using variety of methods and 2) confirmation, triangulation should improve the ability of researchers to draw conclusions from studies and result in a more robust form and findings can be generalized. Moreover, Jack & Raturi (2006) recommend that the reliability and validity of qualitative research are made by multiple data sources, alternate observers, distinctively different theories, alternate methods, varying empirics and several errors can be reduced by triangulation strategy.

This study uses four research methodologies as follows:

1. On-site face-to-face in-depth interview: by making a 2 hour interview with business owners (SMEs) and group leaders (group producers).

2. Participant observation: In this study, each owner has been informed in the beginning of an interview that working behavior and conversation under working environment is going to be observed naturally. Symon & Cassell (1998) suggest that “Participant observation is a research strategy that aims to gain a close and intimate familiarity with a given group of individuals and their practices through an intensive involvement with people in their natural environment.” For this reason, we disguised as a training student coming to examine the working procedure, as Berg’s (2004) participant observation technique, according to complete observation concept,

indicated that “complete participation role, in which they operate as a fully functioning member of the setting. Most often, such research is also covert or secret – other members do not know the researcher is doing research.” The observation takes 4-5 days, depends on size of the organization and completeness of data. Throughout the participant observation, field notes have been made daily two times during the lunch break (12.30-13.30) and after work (17.00-17.30). Data, records of the working environment, incident, and procedures, is considered as fundamental raw data that served as significant indicator for the upcoming analysis. It also plays great part as evidence in supporting the analysis and validating data.

3. Conversation with staff. After the 1 and 2 procedures have been accomplished, the next step is to have an approximately two hours’ recorded conversation with key person or head of department, who were considered as knowledge worker in each organization.

4. Document analysis. Document analysis is an examination of documents that related in every studying aspect, such as organization structure, policies, rules and regulation, etc..

3.3 Data Analysis

After data has been collected through procedures described above, the analysis was carried out as follows:

3.3.1 Transcription. Throughout the interview, discussions and interviews were recorded by digital recorder. Then, individual interviews and conversation with staff were transcribed in Thai. Finally, relevant portions of the transcripts, which match the thesis’ content and purposes, were translated into English.

3.3.2 Coding and indexing categories. Coding and indexing categories is the process of generating concept or significant content by trimming and categorizing, such as labeling and filing, data. This stage provides convenience in searching, grouping, relating, and deciphering data into information. Therefore, coding and indexing is the commencing stage of management information system. (Denzin & Lincoln, 2000)

3.3.3 Analysis. Analysis is the process of arranging, classifying, and grouping data in order to use as subordinate unit or meaning in primary analyzing and

defining. Once these sub units have been processed through classifying and grouping, the outcome will be clusters of meanings which researcher can create their relationship and relevancy. From the interaction within clusters of meanings, which is normally the result from the interpretation stage in the inductive approach, the explanation of incidents and the answer from the study can be revealed.

Content analysis, which is a technique for making inferences by systematically and objectively indentifying special characteristics of message, has been selected for this study. Content analysis is suitable for obtaining results from in-depth interview analysis. It is a research tool used to determine the presence of certain words or concepts within texts or sets of texts. After data has been distributed into frequencies, statistics or any calculating techniques can be applied for the result in the same way as conventional analysis (Berg, 2004).

Summary

To develop a Knowledge Management organization model following by research design and structuring the data collection methods, it then conduces to identify good organization samples which are high performance community business in Chiang Mai, Thailand. In order to investigate an informal organization consistent with Nunes, Annansingh, Eaglestone, & Wakefield (2006) state that KM activities within SMEs tend to happen in an informal operation within organization. Therefore, qualitative research is the major approach in this study. Data should be collected through 4 methods, via on-site in-depth interview with the community business owners or leaders, participant observation, conversation with staff, and document analysis on a total of 8 community businesses for triangulate data. After data has been collected through procedures described above, the analysis should be carried out by content analysis.