Exploration of Knowledge Management System for Sustainable

Community-Based Tourism Development: Case Study of

Bang Rong, Phuket Province

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ABSTRACT

Tourism industry increasingly applies 'sustainability' concepts into its models and practices. Community-based tourism (CBT) can be a basis for sustainable tourism through the development of a community. This study investigates how a community can promote sustainable CBT development using knowledge management (KM).

Bang Rong Village, a predominantly Muslim community in Phuket Province was chosen as a case study. The research used a pragmatic approach comprising of a desktop research, participant observations and surveys. The data included notes from 18 meetings, 11 in-depth interviews and 621 questionnaires collected during March 2014 to March 2015.

The findings compose of fourth parts. The first part reveals themes from open coding of the interviews and meetings and describes the community organization structure, key success factors and limitations of Bang Rong CBT. The second part shows necessary CBT information that is evaluated by the CBT stakeholders. The third part describes the observation from the KM activities that have been implemented in the community. The last part is the KM model for CBT development in Bang Rong. The study concludes with the recommendations for sustaining CBT by using KM processes to improve human resources and increase the community abilities to adapt to changes from the outside.

Keywords: *Sustainability, Community-Based Tourism, Knowledge Management, Phuket*

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ชื่อวิทยานิพนธ์ การสำรวจระบบการจัดการองค์ความรู้เพื่อการพัฒนาการท่องเที่ยวโดยชุมชน
อย่างยั่งยืน: กรณีศึกษา บางโรง, จังหวัดภูเก็ต

ผู้เขียน นางสาวพณรนัรช์ สนธิวานิช

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บทคัดย่อ

อุตสาหกรรมการท่องเที่ยวได้ประยุกต์ใช้แนวความคิด'ความยั่งยืน'ในกิจกรรม
และบริการการท่องเที่ยวอย่างแพร่หลายทั้งภาคทฤษฎีและปฏิบัติ การท่องเที่ยวโดยชุมชน (CBT)
ถือเป็นการท่องเที่ยวอย่างยั่งยืนอีกรูปแบบหนึ่งโดยใช้หลักของการพัฒนาชุมชนเป็นพื้นฐานสำคัญ
การศึกษานี้ได้วิเคราะห์บทบาทการจัดการองค์ความรู้ในการส่งเสริมการท่องเที่ยวโดยชุมชนอย่าง
ยั่งยืน

หมู่บ้านบางโรงซึ่งเป็นชุมชนมุสลิมในจังหวัดภูเก็ตถูกคัดเลือกให้เป็นกรณีศึกษา
งานวิจัยนี้ได้เลือกใช้แนวทางการประยุกต์ใช้ระหว่างการวิจัยเชิงคุณภาพและเชิงปริมาณ โดยใช้การ
ค้นคว้าเอกสาร การสังเกตการณ์แบบมีส่วนร่วมและการทำแบบสำรวจ ข้อมูลได้มาจากการจด
บันทึกจากการประชุมรวมทั้งสิ้น 18 ครั้ง การสัมภาษณ์เชิงลึก 11 ครั้ง และการทำแบบสอบถาม
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ผลการศึกษาประกอบด้วย 4 ส่วน นั่นคือ ส่วนแรก แสดงให้เห็นถึงโครงสร้าง
องค์กรชุมชน ปัจจัยแห่งความสำเร็จและข้อจำกัดของชุมชนซึ่งได้จากการสัมภาษณ์เชิงลึกและการ
ประชุม ส่วนที่สอง แสดงข้อมูลการท่องเที่ยวที่จำเป็นต่อชุมชนซึ่งได้จากการประเมินของผู้ที่มีส่วน
ได้ส่วนเสียในการท่องเที่ยวโดยชุมชน ส่วนที่สาม อธิบายผลการสังเกตจากกิจกรรมการรวบรวม
องค์ความรู้ของชุมชน และ ส่วนสุดท้าย เป็นการวิเคราะห์โมเดลของการจัดการองค์ความรู้ที่
เหมาะสมกับการการพัฒนาการท่องเที่ยวโดยชุมชน งานวิจัยนี้สรุปด้วยข้อเสนอแนะในการ
พัฒนาการท่องเที่ยวโดยชุมชนอย่างยั่งยืนด้วยการใช้กระบวนการจัดการความรู้ในการพัฒนา
ทรัพยากรบุคคล และ การเพิ่มความสามารถของชุมชนในการปรับตัวให้ทันกับการเปลี่ยนแปลง
ของโลกภายนอก

คำสำคัญ: *ความยั่งยืน, การท่องเที่ยวโดยชุมชน, การจัดการองค์ความรู้, ภูเก็ต*

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CHAPTER 1

Introduction

1.1 Statement of the problem

Modern tourism development is increasingly urged to adopt "Sustainable Development". In Thailand, tourism has been included in the national development plans since the 1970s. Tourism was first mentioned in the second plan (1967-1971) and was emphasized in the fourth plan (1977-1981). Currently, the eleventh national development plan (2012-2016) embraced the universal trends of the demand for health tourism, ecotourism, historical and cultural tourism, and sustainable tourism (ST) by promoting creative and eco-friendly tourism through Thai culture (NESDB, 2014).

Phuket Province as one of the major tourist destinations in Thailand is facing several environmental and social degradation due to tourism impacts. Although tourism has economic benefits, poor management of tourism has led to many problems such as traffic jams and accidents, water shortage and wastewater, waste overflow, deterioration of local culture, and takeover of local businesses by international investors (Choi and Sirakaya, 2006). The long term problems and threats facing tourism management in Phuket include the lack of political will and leadership to make hard decisions to solve problems (Wongsattayanon, 2009). Furthermore, Boonchai (2012) identified four weak points of Phuket's sustainability including i) environmental problems e.g. solid waste management and poor wastewater management, ii) social issues e.g. inequity, social disharmony and crime, iii) economic vulnerability, and iv) public health issues which include urban sprawl and low-living standard.

Consequently, Phuket needs to consider ST as an alternative strategy to the current mass tourism development. This was shown in 2013 Tourism Development Plan by Phuket Provincial Administration Organization (PAO) which including renovating tourist

attractions, developing traffic and public transport services, supporting public health services, improvement of the Phuket international airport, and developing Phuket to achieve ST (Phuket PAO, 2013).

Community-based tourism (CBT) can be a basis for ST (Blackstock, 2005; Choi and Sirakaya, 2006; Koster, 2007; Simpson, 2008). It has been used as a strategy to develop a community while integrating socio-economic improvement with natural resource conservation (Blackstock, 2005; Giampiccoli, 2012). However, improper management of CBT can also bring negative impacts to a local community (Satarat, 2010). Therefore, it is important to study the implementation of CBT in a real community in order to gain a better understanding to improve its benefits and avoid shortfalls within the ability of a community (Krutwaysho, 2013; Tirasattayapitak *et al.*, 2015).

Indeed, it is essential that the stakeholders and communities involved in tourism understand the long-term impacts and how to reduce or prevent the negative consequences from tourism activities. An effective knowledge management system (KMS) that allows sharing of the lessons learned from previous problems, promote public education and influences good tourist behaviors will be strategic in making ST a reality (Boonchai *et al.*, 2010).

Bang Rong Village in Paklok Sub-District in the northeast of Phuket Province is well known for using CBT as a successful development strategy and has received many awards. These include OTOP village champion in 2006 from the OTOP product competition, the outstanding green village in 2008 from the Rajapruek Institute Foundation, the outstanding village for the mangrove conservation and recovery in 2009 from Department of Marine and Coastal Resource, the outstanding prize from the 8th Thailand tourism or Kinnaree awards in 2010 from TAT (TAT news, 2011; Community Based Tourism Network, 2014).

The village is over 200 years old. The community decided to form a Mosque Organization to help solve the community problems associated with natural resources and tourism. This development presented an opportunity to study how a local community can plan, manage and use tourism to improve their wellbeing. Also it explores how knowledge management (KM) can be used to promote sustainable CBT, especially the knowledge transfer that is an essential component for increasing competitiveness in tourism section (Shaw and Williams, 2009).

This study aims to investigate into how a community can adapt to the worldwide trend in tourism and use KM mechanism to promote sustainable CBT development.

1.2 Objectives

1.2.1 To explore the KMS involved in developing sustainable CBT at Bang Rong, Paklok Sub-District, Phuket Province.

1.2.2 To propose the KMS model for sustainable CBT development for community leaders at Bang Rong, Paklok Sub-District, Phuket Province.

1.3 Scope

1.3.1 Participants: This research uses three population samples. The first group is the relevant CBT institutes and local residents, the second group is stakeholders who live at Bang Rong Village (community members and tourism operators) and the third group is tourists both international and domestic tourists.

1.3.2 Area: This research focuses on Bang Rong Village, Paklok Sub-District, Phuket Province.

1.3.3 Time: This research collected data from November 2013 to May 2015.

1.4 Research outputs

The results of this research provide a model for KMS in a CBT destination which can be used to facilitate the process for sustainable CBT development. Moreover, the

research allows the implicit knowledge in the community to be recorded and turn into explicit knowledge that can be accessed and transferred to the wider public. This knowledge accumulation is in itself important for developing sustainable CBT at Bang Rong Village.

1.5 Research questions and methods

This research explores the process of sustainable CBT development within the Islamic context. This is achieved by analyzing the lesson learned, organization structure, community framework, key success factors and weaknesses. Stakeholder viewpoints in KM model and community feedback were also obtained. Subsequently, three main research questions (RQs) and associated sub-questions were identified.

RQ 1 What is the knowledge need for sustainable CBT development?

This question explores the origin of CBT in Bang Rong and how the residents apply knowledge to develop the community using CBT. It aims to study the lessons learned as well as the strengths and weaknesses of CBT knowledge in the case study context.

RQ 2 How can a KMS model be developed for sustainable CBT development?

This question explores the CBT stakeholders demand and requirement for the development of a KMS to achieve sustainable CBT. It aims to formulate a KMS model for Bang Rong CBT.

RQ 3 Can the development of a KMS contribute to sustainable CBT development?

This question examines whether a KMS can drive a community CBT development towards sustainability.

CHAPTER 2

Literature Review

This chapter reviews the concepts, theories, and relevant documents related to the areas of sustainable tourism (ST), community-based tourism (CBT), and knowledge management system (KMS). Paper-based and electronic resources from organizations which are concerned with CBT are also explored and reviewed.

2.1 Related concepts and theories

2.1.1 Definitions of ST and CBT

Tourism is the third largest industry in the world (ICOM, 2007). It can improve a community in various ways. Many developing countries use the tourism industry as a driver of economic growth that makes a direct contribution to Gross Domestic Product (GDP) and employment (WTTC, 2014). Tourism can also contribute to poverty alleviation, create jobs, improve livelihoods, encourage community exchange, improve community development and also global growth (Simpson, 2008; Sebele, 2010; Giampiccoli, 2012; UNWTO, 2012). Eshliki and Kaboudi (2012) stated the positive effects of tourism as increasing the living quality for the residents.

However, the impacts of poorly managed tourism have degraded many destinations (Choi and Sirakaya, 2006; Lozano-Oyola *et al.*, 2012).

Definitions and concepts of ST were widely debated in its meaning despite its common use (Hardy *et al.*, 2002). ST has various meanings which depend on the individual viewpoints of each person. ST is defined as tourism which accommodates the needs of the current generation while maintaining the resources and capacities that enable the future generation to

meet their needs (Weaver, 2001). This concept can be seen as originating from the general concept of sustainable development (Beeton *et al.*, 2007).

There are several concepts of how to achieve ST. The examples include ecotourism and CBT which aim to promote sustainability with different focus. Ecotourism emphasizes on collaboration and management for enhancing environmental knowledge, positive ecotourism attitudes and practices, and design environmental plan which promote local natural and cultural attractions (Zhang and Lei, 2012). However ecotourism has been criticized for its lack of benefits for the community which eventually led to negative impacts on the environment and insufficient gain for indigenous community economy (Satarat, 2010).

Recently, tourism management processes have increased emphasis on the balance between the development of tourism activities and the conservation of the supporting natural and cultural resources (Carter and Beeton, 2008; Department of the Environment and Heritage, 2004; Neto, 2003; Zhennjia, 2008). Furthermore, the strong political leadership and the broad participation of stakeholders are required for collaborations towards ST (Bryon and Russo, 2003; Castellani and Sala, 2010; Coccossis, 2008). In 2008, the Tourism Authority of Thailand (TAT) has promoted ST through the campaign "New Heart for Sustainable Thailand" or "Seven Green" concepts which emphasizes on the role of green a community in contributing and benefiting from tourism activities (TAT, 2012). This highlights the importance of community collaboration in ensuring ST.

The concept of ST should not focus only on tourism industry itself. Travis (2011) emphasized on the improvement in economy, social and cultural aspects to produce benefits for both tourists and residents in a long term. According to van Egmond (2008), tourism should try to "achieve sustainability – rather than ST".

To increase the importance of community development in tourism, the concept of CBT is developed. CBT is increasingly seen as a way to empower the indigenous community, enhance their involvement in decision making, considering and increase participation and benefits of tourism activities, and improving the community's ability to cope with tourism perturbation (Carter and Beeton, 2004, 2008; Satarat, 2012). Community participation is a basis of a sustainable CBT (Okazaki, 2008; Yates *et al.*, 2010). A high level of local integration is necessary for generating the socio-economic benefits for the local population (Simpson, 2008).

The definitions of CBT vary with its focus. Generally, it can be defined as tourism that is owned and managed by communities for the benefits of the wider group than those employed in the initiative (Goodwin and Santilli, 2009). The examples of CBT include but are not restricted to home stays, community restaurants and excursions led by local guides. Another way to define CBT is a bottom-up approach to enhance the conservation of natural resources, traditional culture and income at local level (Yamashita, 2011). Both bottom-up and top-down approaches of CBT have various impacts on a community. The advantage of top-down approach is more reliable external funds from many organizations such as foreign aid agency and NGOs. While the benefits of bottom-up approach are local ownership, continuity of the project, fast growth, integrated local community and high benefits on local economy (Koster, 2007; Zapata *et al.*, 2011).

CBT has both strengths and weaknesses. Goodwin and Santilli (2009) described the advantages of CBT as the development of the social, environmental and economic needs of local communities through tourism products while the disadvantages are limited funding and the lack of monitoring for their success or failing. Using the impact assessment and life cycle analysis in Nicaragua, Zapata *et al.* (2011) identified the shortcoming of the CBT as i) the low economic impact in terms of employment and revenue for the community, ii) the short life span of the project after the ending of external fund, iii) the exclusivity of benefit to certain group and iv) the inadequacy of operational knowledge and skills in businesses. Yamashita (2011) described the advantages of CBT as i) creating networks and making linkages among the stakeholders and increase collaboration, and expanding potential benefits of CBT to wider area by creating interaction with governmental agencies and other organizations. Blackstock (2005) stated three major failings in the conceptualization of CBT in community development. They are co-opting or transforming of the community, limited community representation and constraints in local control. In addition, sustainable funding source is a great challenge of CBT (Yamashita, 2011).

To be successful, CBT must contribute to a natural conservation, local culture protection and equal distribution of benefits to community (Halstead, 2003; Yamashita, 2011). This requires a strong political leadership and the broad participation of stakeholders and collaborations toward the better tourism development (Bryon and Russo, 2003; Coccossis, 2008; Castellani and Sala, 2010). The insight into inter-organizational collaboration is crucial in

understanding the collaboration necessary for the successful planning and development of local CBT destinations (Jamal and Getz, 1995). Local culture is also important for creating positive outcomes of CBT (Giampiccoli, 2012). Satarat (2012) summarized the success factors for CBT as; i) the wealth of tourism resources, ii) community participation level, iii) leadership, iv) strong community organization, v) equitable benefit distribution, vi) effective natural resource management, and vii) external support.

Other success factors include community development policy that strengthens business management skills, financial transparency, resources and conditions of micro management environment, knowledge in community-based operation and family entrepreneurship, and better market understanding (Halstead, 2003; Zapata *et al*., 2011). In Thai context, sufficiency economy philosophy and Buddhist economy may also be integrated in the concept of CBT (Satarat, 2012).

2.1.2 Islam, Culture and CBT

The literature on Islam is explored to better understand the context of Bang Rong Village which is predominantly a Muslim community. There has been limited literature on ecotourism and CBT within an Islamic context. Often, studies on Islamic tourism focus on the travel with religious purposes (al-Amin, 2002; Dadpour, 2009; Bhuiyan *et al*., 2011). This section explores the effects of secular tourism on a Muslim community and vice versa.

Currently, Islam is the second largest religion of the world after Christianity and growing rapidly (Dewi and Dhewanto, 2012). It began in the Middle East or Western Arabia region where the religion originated, and spread to other parts of the world (Zamani‐Farahani and Henderson, 2010; Jafari and Scott, 2014). A Muslim or Musselman (this word was used in the 18th century) is a word for a follower of Islam (Khalid, 2002). Muslim population is distributed through war and commerce (Dewi and Dhewanto, 2012; Jafari and Scott, 2014). Greene (2009) estimated the Muslim population to make up one-fourth of world population. There are almost 1.6 billion Muslims, more than 60% are reside in the Asia-Pacific and 20 % in the Middle-East and North-Africa (PNB, 2011; Pew Research Centre's Forum on Religion and Public Life, 2012) (Figure 2.1).
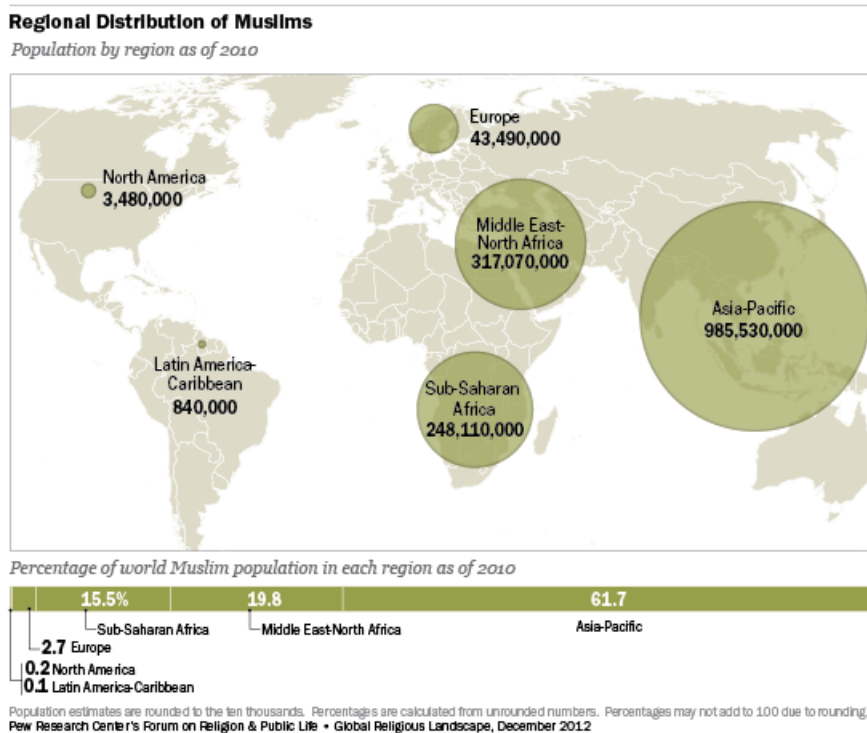
Figure 1.1 The regional distribution of Muslims (Pew Research Centre's Forum on Religion and Public Life, 2012)

In 2010, ten countries in Asia with the largest numbers of Muslims are Indonesia, India, Pakistan, Bangladesh, Iran, Turkey, Afghanistan, Uzbekistan, China, Malaysia (PNB, 2011). The 2009 data showed that nearly 5.8% of Muslim population from 24.10% who live in the Asia-Pacific region reside in Thailand (Jafari and Scott, 2014).

Islam became divided in the early 7th century into two sects; Sunni and Shia (Shi'ite, Shiite, Shi'a) (Rogerson, 2006). Although there are similarities between the two, their differences lie in the practices and conceptions from the interpretation from the preaching of their prophet (Khalid, 2002; Blanchard, 2009; Pew Research Centre's Forum on Religion and Public Life, 2012; Jafari and Scott, 2014). Sunnis focuses on Muhammad's prophet while the Shias follow "Ali" who was Muhammad's son-in-law (BBC news, 2014). Almost 80% of Muslim worldwide follows the Sunni sect (Gilquin, 2005; Harish, 2006; Blanchard, 2009; Dorairajoo, 2009; Liow, 2009; McCargo, 2009). Gilquin (2005) estimated 85% of Muslims living in southern Thailand to be Sunni Muslim. This is thought to be the case for Bang Rong Muslim population

(TAT, 2011; Tavorn and Srisontisuk, 2012; Phuket PAO, 2013). The geographical distribution of Sunni and Shia sects is represented in Figure 2.2 (dark green represents Shia which concentrates in the Middle East, light green represents Sunni which spreads worldwide).

Figure 2.2 The geographical distribution of Sunni and Shia Islam

Many Muslim countries are also popular tourism destinations for example; Malaysia, Egypt, India, Maldives, and Indonesia (UNWTO, 2014). This raises an interesting question of how the religion of the host communities affects tourism experience. Several studies conformed that religion is closely intertwined to tourism which influences the socio-cultural aspect of the destinations such as festivals, ceremonies, and buildings (Henderson, 2003; Bhuiyan *et al.*, 2011; Stephenson *et al.*, 2010; Jafari and Scott, 2014; Stephenson, 2014). Zamani-Farahani and Musa (2012) also highlighted the influences of the Islamic religiosity; belief, piety, and practice on the socio-cultural impacts of tourism.

The religious identity of a destination creates an interesting impact on a "host and guest" relationship which is one of the basic components of the CBT (Tucker, 2003). Din (1989) explained the host-guest interactions using one of the approaches in Islamic doctrines which stated that the relations should be agreeable and show concerns to one's another feelings and needs. The main difference between Islamic tourism and other tourism activities is the

prohibition of alcohol drinking, gambling, and pornography. Henderson (2003) showed the conflicts between the desire of non-Muslim tourists and Islamic residents in a Malaysian case study as one of the major barriers for non-religious tourism in Muslim society. Tourism requirements such as facilities, attractions, and services are also managed by the policy based on reduction of Western style tourism (Henderson, 2003).

However, such conflicts need not become a barrier for tourism development. Stephenson *et al*. (2010) highlighted the potential of Islamic hospitality industries and indigenous style of the host in Dubai of the United Arab Emirates (UAE). The study found the skills and expert management of tourism operators which are capable of adapting to the racial and spiritual context of the host society to be crucial to a successful tourism operation. Jalilvand *et al*. (2012)'s study in Iran which has the largest Muslim population in the Middle East showed that the destination images and information sources of electronic world of mouth or eWOM can influence tourist choices, attitudes, and decisions. Stephenson (2014) illustrated the intangible benefits of Islamic hospitality in the making of local products; hotel, food, and service sectors, which are important for the host-guest relationship.

Clearly there are both advantages and disadvantages of the influences of Islamic culture on tourism. It is evident that maintaining a happy host is essential for the promotion of local hospitality, integration, and willingness to cooperation of the community in non-religious tourism. The successful management of the cultural impacts of tourism on a host community will lead to mutual satisfaction, positive tourist experience, constructive word of mouth (WOM) and increasing repeat visitation by tourists (Kuvan and Akan, 2005; Taks *et al*. 2009; Som and Badarneh, 2011).

2.1.3 Definitions of KM

In an ancient time, the oldest ways of knowledge achievement was through human memory using oral transfer or verbal language. Writing was then used to preserve knowledge around 3000 BC in southern Mesopotamia (Jashapara, 2011). In the mid-fifteenth century, knowledge creation and transfer increased popularity and around late 1990s, there was a shifting paradigm in knowledge from the conceptual framework to technology and innovation support (Tuomi, 2002; Cooper, 2006; Nevo and Chan, 2007). KM is not new a concept. It is an

important tool for increasing competitiveness in businesses and organizations across the world (Ruhanen and Cooper, 2004; Plessis, 2005). There is a rising interest in KM which is indicated by the growing number of articles and management tools in both academic and business world.

According to Awad and Ghaziri (2003), knowledge hierarchy can be divided into five dimensions. Firstly, data is a discrete set containing facts which are unorganized, unprocessed, and usually represented by numbers, words, images, pictures, and sounds. Secondly, information is transformed and systematical organized data which increases its value. Thirdly, knowledge is an actionable information that allows an understanding of facts and measurement (Awad and Ghazari, 2004; Dalkir, 2005; Perrot, 2007). Finally, wisdom and truth signify the highest dimensions which are reflected via action and application (Perrot, 2007; Wen, 2009; Jashapara, 2011; Zaei and Zaei, 2014).
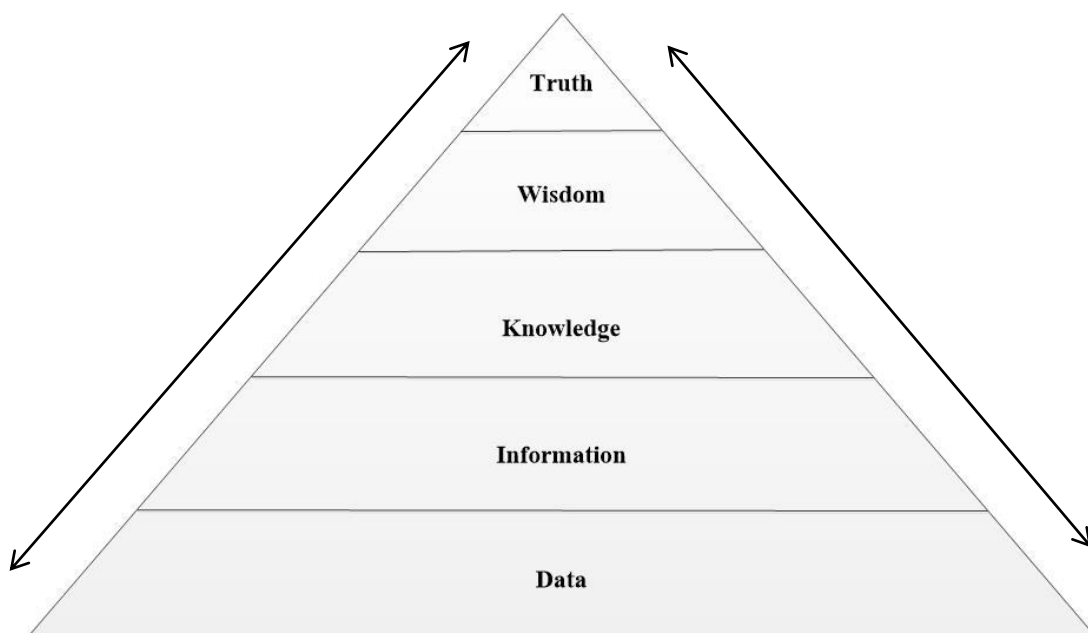
Figure 2.3 The key dimensions of knowledge hierarchy (Awad and Ghaziri, 2003)

Bouncken and Pyo (2002) proposed that knowledge is made usable as a result of KM. Similarly, Mclver *et al*. (2012) explained that knowledge was the interface between knowledgeable and purposefull information. Increasingly, KM is recognized as a useful management approach within the development sector (Furguson *et al*., 2010). It can also be used

to describe various activities including the application of new technology as well as the consolidation of the intellectual capital of an organization (Jia *et al*., 2012). KM can determine the effectiveness of an organization in strategic planning, decision-making, problem solving, opportunity seeking, and administrative management (Plessis, 2005; Jia *et al*., 2012). KM's success depends on how well an organization deals with collecting, modeling, storing, reusing, evaluating and maintaining knowledge (Musulin *et al*., 2011; Lin and Lee, 2012). Good KM practices can provide an organization with a long-term competitive advantage by applying the existing knowledge to create new knowledge (Alavi *et al*., 2001).

There have been several debates on various forms and dimensions of knowledge (Nevo and Chan, 2007; Perrot, 2007). Since 1958, knowledge is thought to be divided into two forms; i) tacit knowledge, and ii) explicit knowledge (Polanyi, 1958; Hallin and Marnburg, 2008).
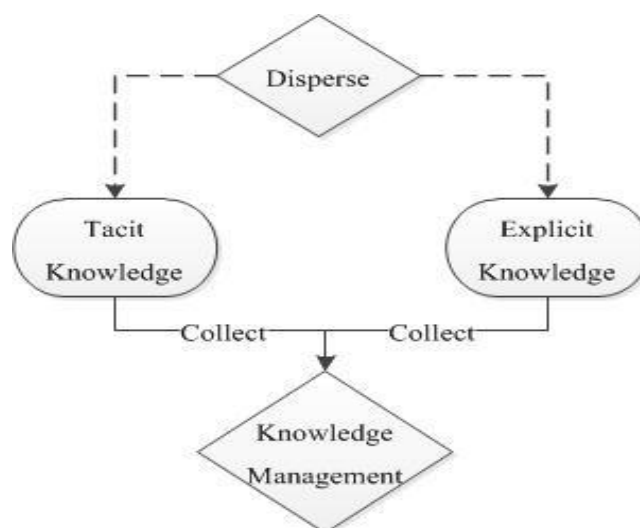
Figure 2.4 The principles of KM (Adapted from Chua and Heng, 2010)

As shown in Figure 2.4, KM is a collection of dispersing knowledge from tacit and explicit forms or from a person to a system which can be accessed and developed by users (Razmerita *et al*., 2003).

Tacit knowledge is characterized by individual experiences, abstract knowledge rooted in actions, experiences and involvement in a specific context (Mclver *et al*., 2012). Explicit

knowledge is collected and shared through evidences, theories and manuals, or the concrete of knowledge that is articulated, generalized knowledge (Alavi *et al.*, 2001).

Elizabeth (2001) stated that the way to maintain tacit and explicit knowledge in an organization requires an environment for the members to create and share the knowledge. The transformation from tacit to explicit knowledge must begin in KM processes (Richard *et al.,* 2001). Another method of such transformation is explained by Nonaka and Takeuchi (1995) as the knowledge spiral dynamic which converts between tacit and explicit knowledge and consists of four quadrants; socialization, externalization, combination and internalization. The knowledge flow is an important mechanism and influence in KMS among organizations including tourism industry (Baggio and Cooper, 2010).

Knowledge sharing is gaining increasing popularity over knowledge ownership. There is a changing trend in KMS from the statement *"my information is power"* to *"sharing is power"* (Plessis, 2005). KMS processes can transform traditional sharing which includes "knowledge sharing" and "knowledge transfer" (King and Marks Jr., 2008) to a combination of processes which involve the creation, transfer and application of knowledge (Alavi and Leidner, 2001).

2.1.4 KM processes and system

KM processes can be described in a model as a system that integrates the components and processes together with the available supports for the creation, transfer, and application of knowledge (Alavi and Leidner, 2001). For example, Kulkarni *et al.* (2014) proposed a KMS model that included user's satisfaction within an organization, the demand (knowledge reuse) and supply (knowledge contribution). Several KMS models have been proposed as a result of different viewpoints of scholars on their approaches. Selected literature which discussed KM processes was analyzed and summarized in Table 2.1.

Table 2.1 The literature in KM processes (Modified from Dalkir, 2005)

Authors (year)	Scope	KM processes
Beer (1981)	Organization	Scanning / Problem Solving / Abstraction / Diffusion / Absorption / Impacting
Wiig (1993)	Organization	Creation / Sourcing / Compilation / Transformation / Dissemination / Application / Value Realization
Meyer and Zack (1996)	Organization	Acquisition / Refinement / Store or Retrieve / Distribution / Presentation
McElroy (1999)	Organization	Individual & Group Learning / Knowledge Claim Validation / Information Acquisition / Knowledge Validation / Knowledge Integration
Nickols (1999)	Organization	Acquisition / Organization / Specialization / Store & Access / Retrieve / Distribution / Conservation / Disposal
Bukowitz and Williams (2003)	Organization	Get / Use / Learn / Contribute / Assess / Build and Sustain / Divest
Rollet (2003)	Organization	Planning / Creating / Integrating / Organizing / Transferring / Maintaining / Assessing
Yang and Wan (2004)	Hotel	Sharing / Acquisition / Leveraging / Storage
Grant (2005)	Organization	Identification / Measurement / Storage and Organization / Replication / Sharing / Integration
Cooper (2006)	Tourism	Stocks & Mapping / Capturing / Codifying / Flow / Transfer
King and Marks (2006)	Organization	Supervisory Control / Organization Support / Knowledge Sharing / Knowledge Transfer
Nevo and Chan (2007)	Organization	Creation / Codification / Transfer / Application
Perrot (2007)	Organization	Bottom-up approach; Collection & Capture / Codification & Filtering / Repository / Integrate / Transfer Top-down approach; Management Panel / Management Policy / Gap Risk Assessment / Expert Panel / Plan for Prioritize / Integrate / Transfer

Table 2.2 The literature in KM processes (Modified from Dalkir, 2005) (cont.)

Authors (year)	Scope	KM processes
Boonchai *et al.* (2010)	Social development	Psychological Empowerment / Partnership / Problem Solving
Zehrer (2011)	Tourism	General Prerequisites / Identification / Measurement / Storage and Organization / Sharing and Replication / Integration

As shown in Table 2.1, there are not many literatures on KM in CBT. Studies on KM often focused on business competitiveness (King and Marks, 2006) and stakeholder analysis (Baggio and Cooper, 2010). This highlights the gap in the study area of KMS for CBT and community development.

KM in hospitality and tourism has not adapted or developed as in other fields (Ruhanen and Cooper, 2004; Yun, 2004; Hallin and Marnburg, 2008). Overlooking the importance of KM especially for CBT destination can impede an attempt towards ST. Even though communities have a lot of both tacit and explicit knowledge it is scattered because of the lack of management. Proper KM tool for accessing and utilizing knowledge will help consolidate key information and knowledge necessary for solving problems and developing the community initiatives in the desired direction (Bouncken and Pyo, 2002). It is essential that KM application in the community setting is studied in reality.

This chapter concludes that there remains a gap in knowledge in the application of KMS and KM components to address CBT issues especially within a religious context. This supports the rationale and RQs that form the basis of this study.

CHAPTER 3

Methodology

This chapter explains the methods designed for gathering data, and analysis tools used in this research. This research uses mixed methods (Robson, 2011) in order to obtain knowledge about sustainable CBT in Bang Rong Village. Several approaches for data gathering were used to obtain information from various stakeholders who have explicit and tacit knowledge. As knowledge of sustainable CBT is diverse depending on stakeholders' viewpoints, this research focuses on the expectations and perceptions of stakeholders in tourism management at Bang Rong Village. The study aims to resolve three RQs using various methods as shown in Table 3.1.

Table 3.1 The RQs and their respective data gathering methods

Main questions	Sub-questions	Methods and Data sources	Section
(RQ 1) What is the knowledge need for sustainable CBT development?	1.1) Why did Bang Rong select CBT as community development strategy?	Desktop research / Semi-structured interview / Participant observation	4.1
	1.2) What organizations are involved with Bang Rong CBT?	Desktop research / Semi-structured interview / Participant observation	4.1
	1.3) How did Bang Rong utilize and gain tourism knowledge?	Semi-structured interview / Participant observation	4.1
	1.4) Who are the key actors in KM of Bang Rong CBT?	Desktop research / Semi-structured interview / Participant observation / Work shop	3.1.4.2
	1.5) What knowledge influence successes or limitations of Bang Rong CBT?	Desktop research / Semi-structured interview / Participant observation	4.2.3
(RQ 2) How can KM model be developed for sustainable CBT development?	2.1) What is the tourism knowledge which Bang Rong need to develop to satisfy community expectation?	Semi-structured interview / Participant observation / Questionnaires	4.3

Table 3.1 The RQs and their respective data gathering methods (cont.)

Main questions	Sub-questions	Methods and Data sources	Section
(RQ 2) How can KM model be developed for sustainable CBT development?	2.2) What is the tourism knowledge which Bang Rong need to develop to satisfy visitor expectation?	Desktop research / Participant observation / Questionnaires / Work shop	4.3
	2.3) What are KM processes that are appropriate with the Bang Rong CBT?	Desktop research / Participant observation / Questionnaires / Focus group / Action research	4.5
(RQ 3) Can the development of knowledge management contribute to sustainable CBT development?	3.1) What have changed in Bang Rong CBT since the introduction of this research?	Triangulation / Case study / Focus group	4.4
	3.2) What is the response from Bang Rong towards KM initiatives for sustainable CBT?	Semi-structured interview / Participant observation / Focus group	5.1
	3.3) What is Bang Rong perception on the indicators of sustainable CBT?	Triangulation / Focus group	5.2

3.1 Research design

There are five steps in this research. These steps are connected and form a part of a continuous process (Figure 3.1).
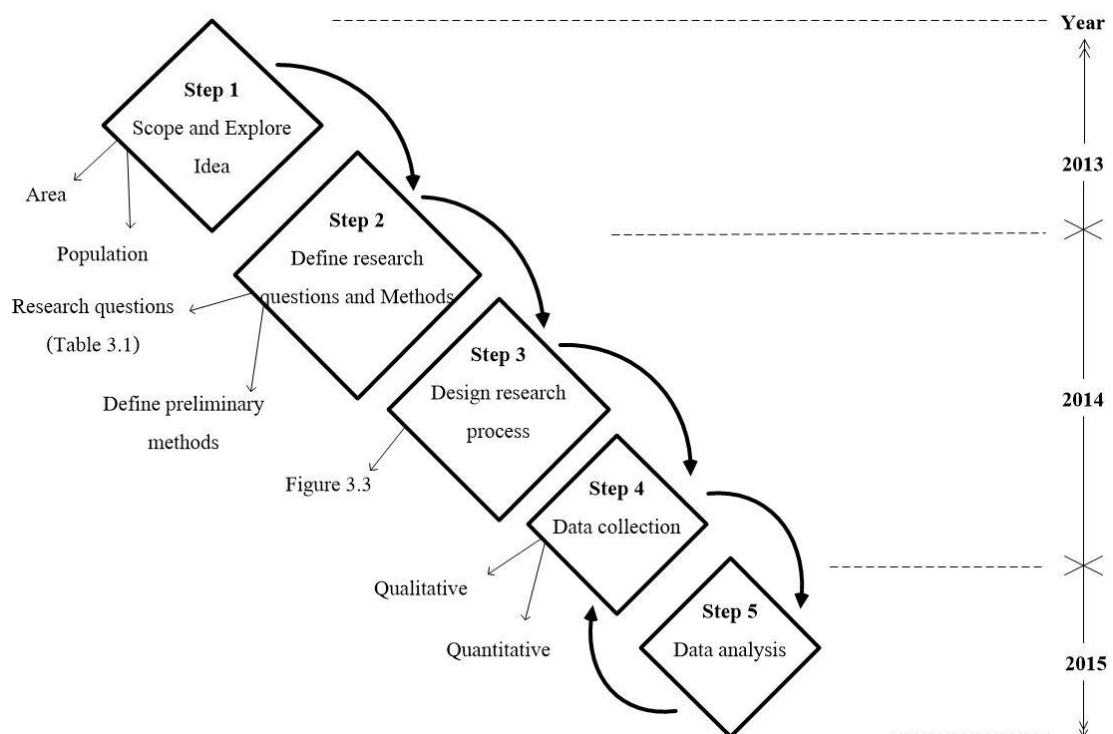
Figure 3.1 The research processes and timeline

3.1.1 Scope and explore idea (Step 1)

The first step is carried out by observations of the community with active CBT projects in Phuket. It was conducted via desktop research and semi-structured interviews. The selection of the case study was opportunistic but represented the best available source of information; the decision was based on the recognition of a complex community context (Yin 2014). Bang Rong Village was selected as a case study as it provided potential great opportunity to study the issues influencing the sustainable CBT in Phuket and the KM applications.

3.1.1.1 Study area

Bang Rong Village is one of nine villages in Paklok Municipality in the northeast of Phuket Island [Figure 3.2 (Black color represents Bang Rong Village boundary.)]. It covers an area of approximately 36 square kilometers (DASTA, 2010). It is located 22 kilometers from Phuket Town by road.
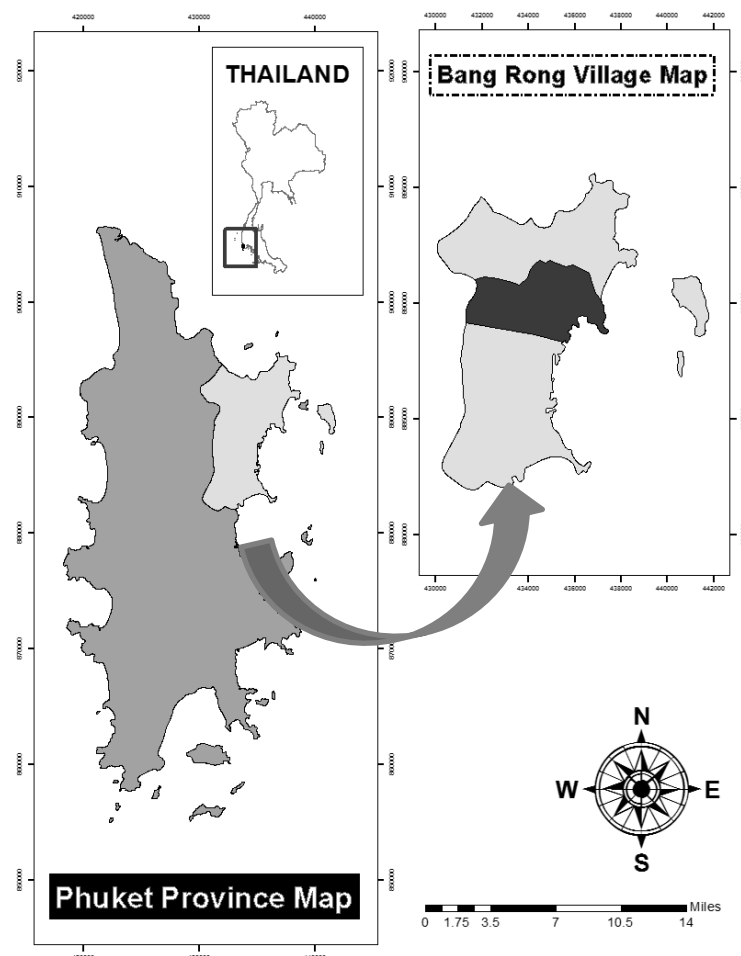
Figure 3.2 The map of Bang Rong Village

Bang Rong Village is the village No. 3 in Paklok Sub-District Municipality. The total number of population in 9 villages is 14,215 people with Bang Rong having the second largest population after Bangla Village (Table I-1 in appendices I).

The average population density in Paklok Sub-District is 374 people per square kilometer (Paklok Sub-District Municipality, 2013).

3.1.1.2 Scope of population

The population in this study comprised stakeholders of Bang Rong CBT which were classified into four groups:

(i) Relevant authorities in Bang Rong CBT

(ii) Leaders in Bang Rong Village

(iii) Local residents and tourism operators in Bang Rong Village

(iv) International and domestic visitors who travel to Bang Rong.

The research uses both the qualitative and quantitative approaches. The qualitative method, interviews and observation were used to obtain verbally presented information from a small group of key informants such as the leaders in Bang Rong and relevant authorities in Bang Rong CBT. The key informants were recruited using snowball sampling and community workshops (Halstead, 2003) (Figure 3.4).

In term of quantitative method, survey was used to acquire data from a bigger group of participants in order to generalize the information and represent wider population (Robson, 2011).

The sample size for quantitative survey can be calculated by the Taro Yamane Formula in case of finite population (Yamane, 1967).

$$n = \frac{N}{1+N(e)^2}$$

when,   n = Sample size

N = Research population size

e = Confidence interval at 95% (0.05)

Table 3.2 shows the research methods and total size of the sample population for different research approaches.

Table 3.2 The samples and methods

Samples	Sample size (Person)	Total population (Person)	Methods
Internal community			
Leaders	8	12	Qualitative
Local residents	290	2,380	Quantitative
Tourism operators	55	Flexible data	Quantitative
External community			
International visitors	93	Flexible data	Quantitative
Domestic visitors	183	Flexible data	Quantitative
Relevant authorities in Bang Rong CBT	3	8	Qualitative

3.1.2 Define RQs and methods (Step 2)

This phase of the study aimed to set a boundary and direction of the research according to the identified RQs (Table 3.1).

It started by obtaining an understanding of the study area context from desktop research and observing relevant activities in the area. Subsequently the literature review refined the questions, data gathering methods and the focus of the analysis. This contributed to the decision and planning for the subsequent steps.

3.1.2.1 Desktop research

Secondary data were gathered through the desktop research from reports, news, and documents which are related to the issues of sustainable CBT in Bang Rong. This provided the information which contributed the resolution of RQ 1 on the knowledge need for sustainable CBT in the area.

3.1.2.2 Observation

Observation was conducted to gather information about the context of CBT in Bang Rong Village in order to identify knowledge needs (RQ 1) as well as the KMS model for sustainable CBT (RQ 2).

3.1.3 Design research process (Step 3)

This part was a research strategy designed to address three main RQs (Table 3.1). The overview of the research process is shown in Figure 3.3.
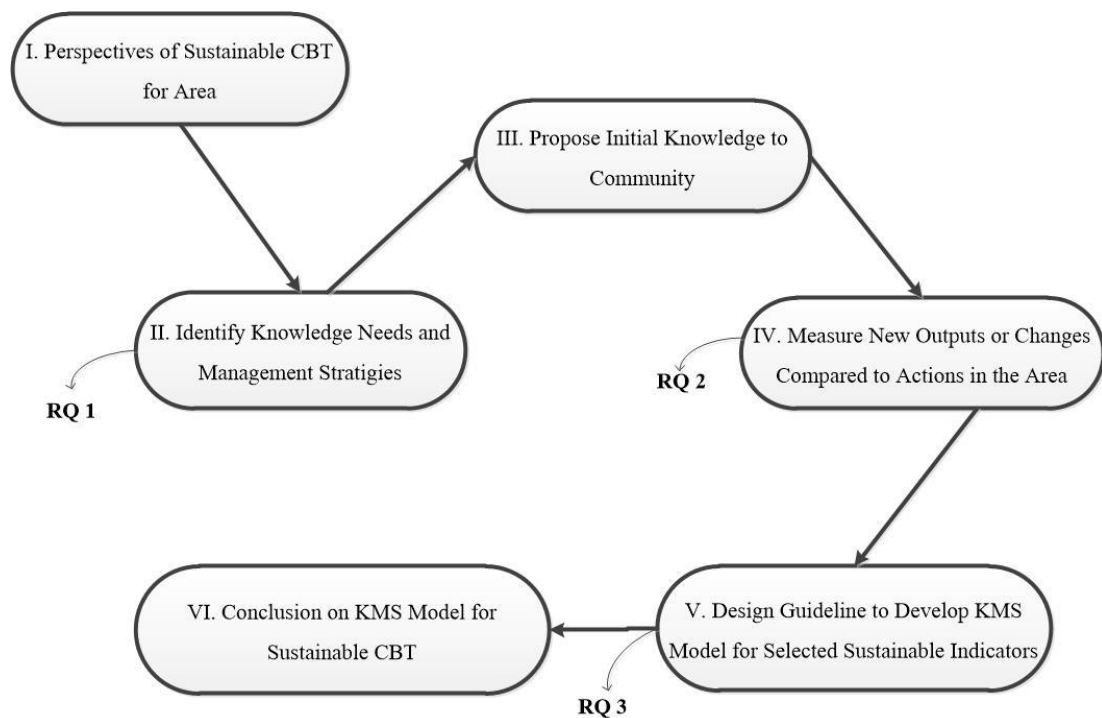
Figure 3.3 The design research process in step 3

The research first explored the perspectives of sustainable CBT for the area to gain a holistic understanding of the community contexts. Subsequently, the requirements of knowledge and improvement plans for sustainable CBT at Bang Rong Village were identified (RQ 1). This provided the knowledge for the next process. The third step proposed the gained knowledge to the community. These were based on information which can help identify the

community strategies on CBT development. The forth process was the implementation of research activities in the study area and the observation of its effectiveness in influencing changes towards sustainable CBT practice in Bang Rong Village (RQ 2). The fifth process involved a design a guideline to facilitate KM processes and the identification of indicators which is appropriate for the area (RQ 3). The last process involved using the findings from the previous processes to create a model of KMS for sustainable CBT in Bang Rong Village.

3.1.4 Data collection (Step 4)

Data collection follows a pragmatic approach which focuses on "the abductive-inter-subjective-transferable" possibilities (Morgan, 2007). As this research aimed to gain insights from an actual CBT context, it searched for verbally or evidence that reveal the answers to the RQs (Robson, 2011). Qualitative data were obtained through in-depth interviews, document gathering and direct observation (Merriam, 2002; Patton, 2003). Quantitative data were acquired to confirm the preliminary qualitative data and explore expectations in further processes through questionnaires.

3.1.4.1 Desktop research

Desktop research was conducted through gathering of personal records, memoirs, diary, reports, letters, newspaper, and photographs relevant to the topic.

3.1.4.2 In-depth interview

Semi-structured open-ended interviews were conducted with key stakeholders from the population classified earlier to finalize the resolution of RQ 1 and create the KMS model in RQ 2. The participants were selected using snowball sampling technique (Robson, 2011). Figure 3.4 shows the positions and linkages of the interviewees. Circles represent the individual and rectangles signify their position and organization.
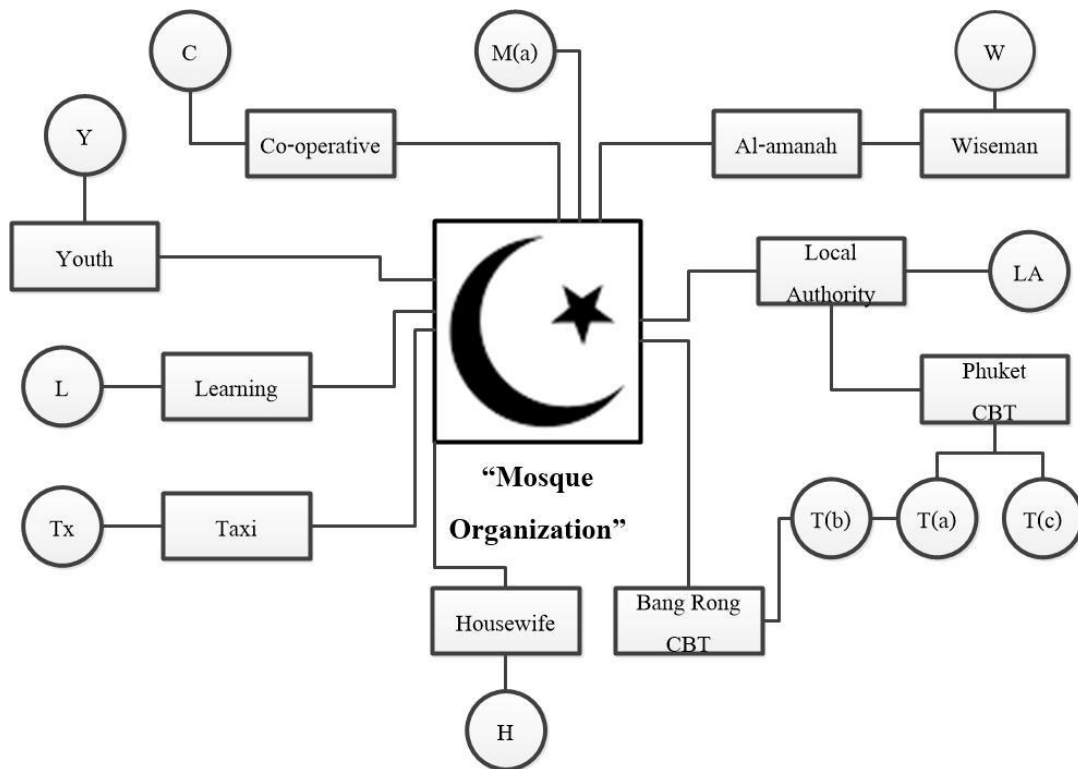
Figure 3.4 The mapping of key informants from in-depth interviews.

3.1.4.3 Participant observation

Participant observation involved attendance to community meetings and the gathering of related groups. The researcher joined the total of 18 meetings during March 2014 to March 2015 which equated to 71 hours of observation data. These methods are useful for the research context which is characterized by small groups, regular occasion, accessible activities, short period of contact, and high acceptance of researcher in the community (Robson, 2011).

During earlier visits to the study sites, the researcher was unknown to the community members and participated in the community activities as "the complete observer" in the first event in March 2014.

In the later stage of the study, the researcher attended at community meeting as "the participant observer" and became "the facilitator" during the study trip and Bang Rong CBT meetings. Subsequently, the researcher participated in the events such as public meetings, Paklok meetings, and other community meetings with increasing level of involvement. Table 3.3 lists the events participated by the researcher.

While the participation of the researcher can result in biases during the observation, this was prevented and minimized by the triangulation of the findings from both quantitative and qualitative data collection methods.

Table 3.3 The events participated by the researcher during data collection

	Date	Topic	Participants	Hour	Activities and Outputs
1st	21/3/2014	"Phuket – Mai - Sed - Mai - Lerk transformation project"	CODI officers, All Phuket Municipality officers, Head of Paklok Community Organization Development Institute	3	- 18 councils discussed indicators for Phuket development (CODI, 2014)
2nd	22/3/2014	Bang Rong transformation Meeting	Mosque members	3	- Human Resource Development especially education - KM activities especially tourism through short film, website, etc. - Youth camp focusing on cultural and natural conservations
3rd	6-9/4/2014	Youth camp in April, 7th – 9th	Youth members	18	- Bang Rong short film shooting for study trip
4th	9/4/2014	Bang Rong meeting	Mosque members and Youth members	2	- Developed the next generation in the village - Prepared power point and a guide for a study trip
5th	26/4/2014	Bang Rong meeting	Mosque members	3	- Building for the economic sufficiency project & CBT call center - Set team who connect with Mosque

Table 3.3 The events participated by the researcher during data collection (cont.)

	Date	Topic	Participants	Hour	Activities and Outputs
6th	8/5/2014	Bang Rong meeting	Mosque members	3	- Management in the village such as pier, taxi, community restaurant , walkway, etc. - Developed sustainable CBT
7th	14/5/2014	"Virtue Household-Well Being-Sufficiency Economy" project	Paklok CODI members	3	- Waste separate project - Human resource development - Problem solving in the illegal buying of drugs - Tourist insurance
8th	10/6/2014	Phuket CBT meeting	Phuket CBT Members, Ministry of Tourism and Sport officers	3	- ASEAN Beach Game on November - Senior Game in July
9th	21/6/2014	Tourism language	Community restaurant members and youth in Bang Rong	2	- Teacher from Phuket Rajabhat University taught tourism language
10th	23/6/2014	Phuket CBT meetings	Phuket CBT Members, Ministry of Tourism and Sport officers	3	- Surveyed Phuket CBT route
11th	24/6/2014	Phuket CBT meetings	Phuket CBT Members, Ministry of Tourism and Sport officers	3	- Brochure of Phuket CBT for promote CBT

Table 3.3 The events participated by the researcher during data collection (cont.)

	Date	Topic	Participants	Hour	Activities and Outputs
12th	9/11/2014	Paklok CBT meeting	Paklok CODI members, PTT officer	3	- CBT guidebook and lecturer
					- CBT linking team among Paklok
					Villages
13th	15/11/2014	Paklok CBT meeting	Paklok CODI members, PTT officer	3	- CBT linking team at call center
					- CBT website for all 9 Paklok Villages
14th	20 - 22	Singapore trip	Mosque leaders	6	- City plan management
	/11/2014				- Learning center
15th	22/1/2015	Office of the NESD meeting	Paklok CODI members, NESD officers	3	- Paklok community map
16th	24/1/2015	The civil reform stage	Phuket Municipality officers, Local members	2	- Topics of Phuket development
17th	16/3/2015	Phuket CBT meeting	Phuket CBT members and Ministry of the Sport and Tourism officer	4	- Phuket CBT promoted at the Phuket International airport, 20th May 2015
18th	19/3/2014	Phuket CBT meeting	Phuket CBT members and Ministry of the Sport and Tourism officer	4	- Phuket CBT promoted at the Phuket International airport, 20th May 2015

3.1.4.4 Questionnaire for stakeholders

A questionnaire was used to evaluate the expectation of KM activities that stakeholders desire to develop to promote sustainable CBT for Bang Rong Village and also confirmed the results from the qualitative survey. This provides the information needed to address RQ 2.

The questionnaire was designed in Thai language for internal community including Mosque members, local residents, and tourism operators who live and work in Bang Rong (Appendix II – 1) and Thai visitors (Appendix II – 2). Another questionnaire was designed in the English language for international visitors (Appendix II – 3). A total 345 questionnaires were administered for internal community and 276 questionnaires for external community (Table 3.4). In the questionnaires there were three sections for internal populations and two sections for visitors from Thailand and foreign countries. Section one asked general information of the respondents, section two was only administered to Mosque members to provide feedback on the preliminary results from qualitative research, section three was included in internal community survey but not for the external community.

Table 3.4 The questionnaires for internal and external community groups

Internal community $(N_{INT} = 345)$			External community $(N_{EXT} = 276)$	
Mosque Members $(n_1 = 23)$	**Local Residents** $(n_2 = 267)$	**Tourism operators** $(n_3 = 55)$	**Thai visitors** $(n_4 = 183)$	**Oversea visitors** $(n_5 = 93)$
Section 1: <u>General information of the respondents</u> This section is aimed at collecting demographic information of the respondents. Questions for internal and external groups have a few differences (Appendices II). Questions used are checklists and multiple choices.				
Section 2: <u>Agreement of key success factors and limitations</u> This section is for mosque members only. It aims to evaluate the agreement and opinion of the key success factors and limitations in the community. The question types are rating and ordinal scales.			**Section 2:** <u>Concept of CBT Bang Rong development</u> The same as section 3 in the internal community questionnaire.	

Table 3.4 The questionnaires for internal and external community groups (cont.)

Internal community (N = 345)			External community (N = 276)	
Mosque Members (n_1 = 23)	**Local Residents** (n_2 = 267)	**Tourism operators** (n_3 = 55)	**Thai visitors** (n_4 = 183)	**Oversea visitors** (n_5 = 93)
Section 3: Concept of CBT Bang Rong development This section is aimed at studying the perspectives and expectation of tourism data to improve CBT projects. Moreover, the satisfaction in the current Bang Rong CBT, is explored. The questionas in this section use checklists, rating and ordinal scales.			**Not Applicable**	

3.1.5 Data analysis (Step 5)

The qualitative and quantitative data were analyzed using integrated content analysis. The information from in-depth interviews were formulated using grounded theory (Corbin and Strauss, 2015). Numerical data were computed into percentages and mean. Content analysis of qualitative data was facilitated by Nvivo software which aided in the calculation of word frequency, coding themes and identifying relationships between these themes from in-depth interview (Robson, 2011). Transcripts from the interviews with the key informants and texts from desktop research were coded with themes using the frequency system to represent the results (Figure 4.3). Finally, the findings were verified by gaining feedback from the community.

The main analytical tool used was a qualitative content analysis facilitated by NVivo software. The participant observations and notes were used to enrich the findings.

CHAPTER 4

KM components for sustainable CBT development

This chapter reports the findings from participant observations, in-depth interviews, and field surveys. The chapter contains five sections. These are historical development of Bang Rong CBT, key success factors and limitations in CBT, key knowledge for Bang Rong tourism, KM implementation, and also CBT and KM model. In doing this the chapter addresses the three RQs.

4.1 Historical development of Bang Rong CBT

CBT development in Bang Rong is the direct result of the community response to difficulties associated with Phuket tourism development. This is demonstrated through the evolution of CBT development described in the interviews with Bang Rong community members and observations by the researchers. Figure 4.1 and 4.2 highlight the key events in the community improvement at micro and macro levels as a result of the external pressures and changes. This shows how learning occurs during the attempt to solve problems for Bang Rong community. The understanding of this process also helps to identify components of the KMS that are relevant to CBT.
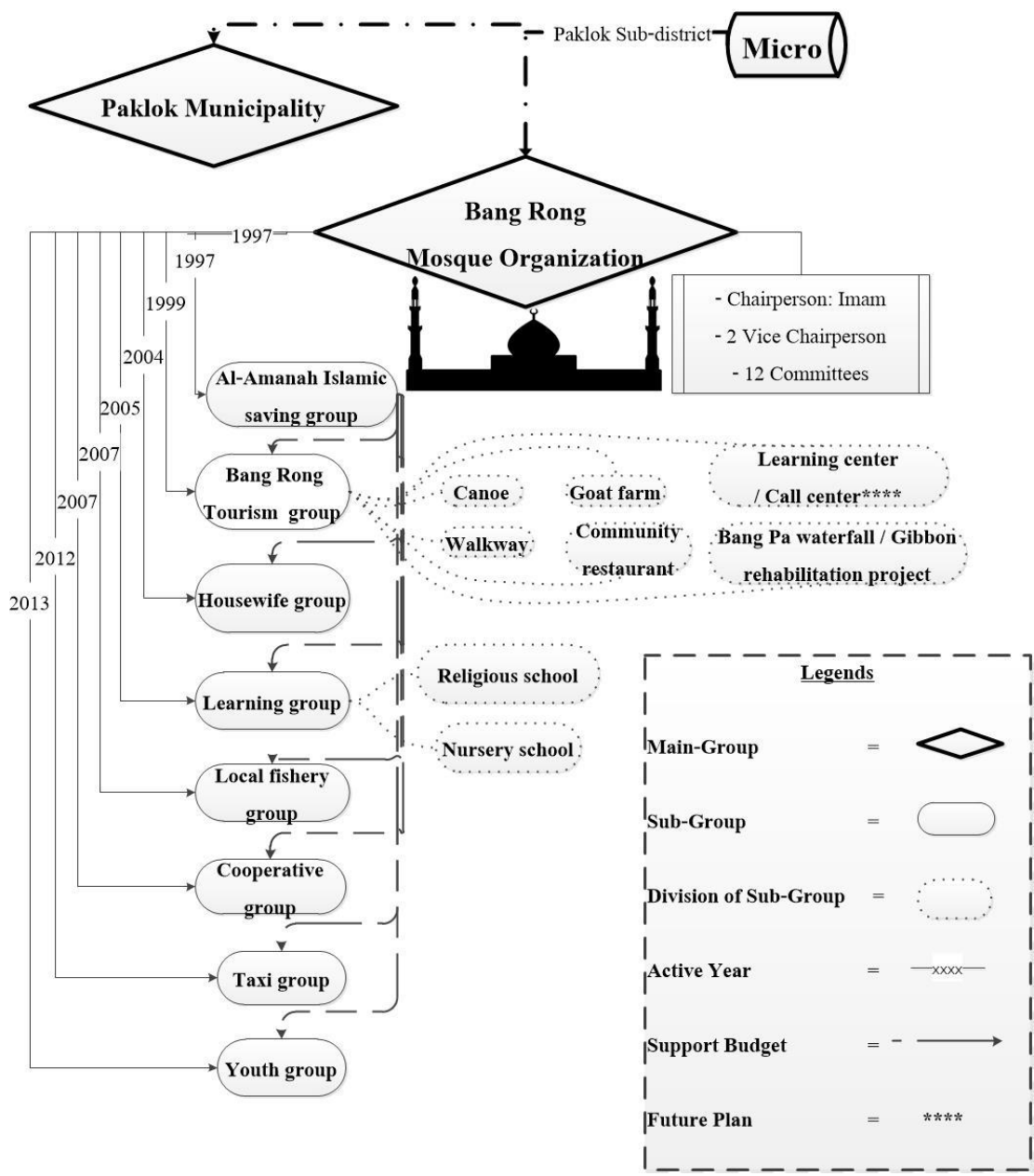
Figure 4.1 The micro level of Bang Rong CBT development

Bang Rong CBT originated from the Mosque Organization. The Mosque Organization was established to help the village cope with the environmental and social problems

which affected the local people in the community. These problems began in 1970 when the government granted a large concession for charcoal production which lead to the destruction of mangroves, marine animal reduction and marine pollution. Between 1970 and the mid 1990's the situation continued to deteriorate when local people incurred large debts as they lost the public land where they earned a livelihood from cattle grazing, farming and fishing to the investors and private businesses who obtained concessions to use the land for charcoal burning and shrimp farming. In 1997 a group of villagers comprising the *'Imam'*[1] and forty volunteers formed a community organization called Bang Rong Mosque Organization to help alleviate the problems using the religious meetings every Friday at the Mosque as a way to help a community cope. The men in the village gathered to worship at the Mosque and afterwards the leadership group informed and discussed the problems of the community. These people are now considered 'the first generation leaders". In this study the main leader is identified by (W) which reflects a local recognition that he was the "wise man" who initiated the process of change. The identities of the individuals involved in the study have been made anonymous using only codes to respect their privacy (Figure 3.4).

Bang Rong Mosque Organization became the main administrative organization to support the revitalization of the village. As a result, many sub - organizations were established including the Al-Amanah Islamic Saving Group (1997) which was set up to provide a financial support for community development. The tourism group in Bang Rong was formed in 1999 and received about one million Bath budget from the Al-Amanah Islamic Saving Group [T(a)]. The purpose of tourism group was to promote tourism that is managed *"by local community which is useful for young generations. ...this generation can use the resources for make a living" (W)*. Tourism development in the village started with a community restaurant and was followed by a canoe hire, a walk way and a goat farm. A learning center for sufficiency economy, a tourist call center and home stay are also planned to be established [C and M(a)].

Tourism group was seen as a success and influenced the establishment of a housewife group (2004), a learning group (2005), a local fishery group (2007), a co-operative group (2007), a taxi group (2012) and a youth group (2013). Major initiatives that are organized

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[1] Imam is the title of spiritual leader, or supreme above all the Muslim community (Albassam, 2011).

by these subsequent groups include a nursery school, local water supply and local weekly market. The funding mechanism for these groups is based on the Islamic obligation of giving to the Mosque charity which allows the funds to be used to support more activities.

Among all the subgroups of Mosque Organization, tourism was one of the most active and supported groups after Al-Amanah Islamic Saving Group. This is mainly because it is compatible with the current government policy which focuses on CBT promotion [T(c)] and global economic trends.

The study into the historical development of CBT in Bang Rong allows for better understanding of the factors that contribute to the community learning process. At micro level, the key organizations that gave rise to CBT are the Mosque Organization and its subsidiary groups. At the beginning, the knowledge for community development tends to come from the "first generation of leaders" who were the local religious leaders and volunteers in the Mosque Organization. The tourism initiatives originated from the awareness about the community problems, opportunities which exist in the area and the visions for the future. Knowledge which helps in the decision making for investment in tourism activities in Bang Rong were often obtained from tourist feedback, learning from other destinations, and assistance from education institutes outside the community. This highlights the role of external organizations in contributing to further learning and development of CBT in Bang Rong which is explained in the next section.
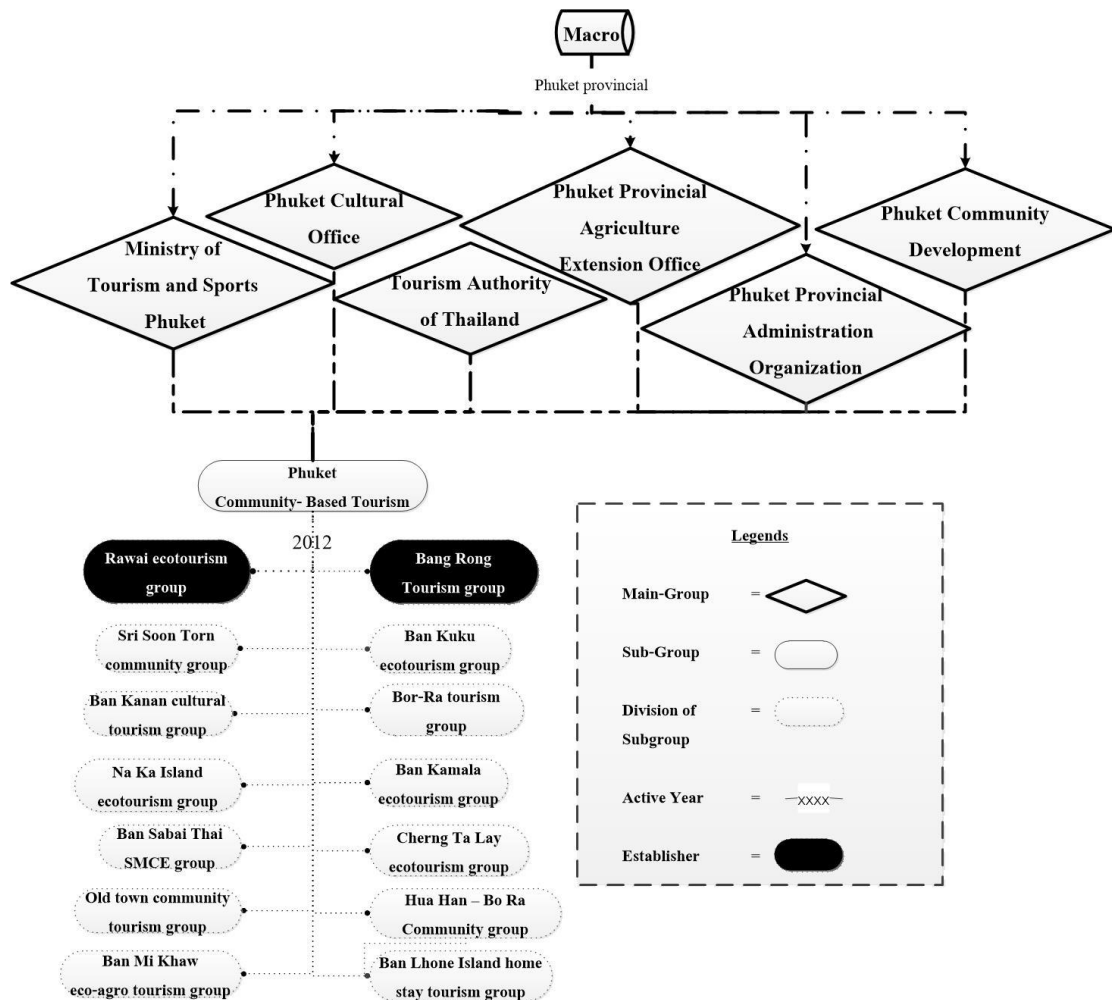
Figure 4.2 The macro level of Bang Rong CBT development

At macro level, the relationships between Bang Rong CBT and other related organizations can be schematically illustrated in Figure 4.2. Bang Rong recognized the importance of networks which helped provide access to resources and improve the community knowledge and capacity. In 2012, Bang Rong established a linkage with Rawai CBT to create a network of CBT destinations in Phuket [T(a) and T(b)]. This partnership grew from 2 members to the total of 14 villages in 2015 [T(a)]. The network has been mainly supported by the Ministry of Tourism and Sports. The nature of the support included finance, consultation and facilitation for marketing and knowledge exchange with other organizations. In addition, TAT helped in advertising and providing guidelines for CBT practices. Phuket Cultural Office, Phuket Provincial Agriculture Extension Office, Phuket PAO and Phuket Community Development assisted in

recruiting human resource for Phuket CBT members. Recognizing the need to improve Phuket CBT and increase the strength of the group. CBT members exchanged knowledge through meetings that were set up through various tourism campaigns in Phuket.

The conceptualization of networks between Bang Rong and other external organizations reveal the available resources outside the community that were instrumental in increasing the opportunity and capacity of Bang Rong CBT. Governmental organizations were the main source of assistance which provided knowledge through organizing an opportunity for exchange of information and experience among the network partners.

The perspectives of the external organizations provided Bang Rong with the awareness about strengths, weaknesses, opportunities and threats which can be used to identify success factors and barriers of its operations. These are discussed in section 4.2.

4.2 Key success factors and limitations in CBT

This section uses data from interviews with key informants and observations made between March 2014 and March 2015. The transcripts and research notes were analyzed contextually and grouped into themes (nodes). These were then further clustered into two super nodes namely key success factors and community limitations (Table 4.1).

Table 4.1 The key success factors and community limitations

Key Success Factors	Community Limitations
▪ Leadership	▪ Lack of human resource
▪ Governance	▪ Lack of knowledge for social change
▪ Education and awareness	▪ Lack of bridging social capital
▪ Collective action	

4.2.1 Key success factors of Bang Rong CBT

The in-depth interviews and participant observations revealed many attributes of the community (primary nodes) that enabled CBT to be successful in Bang Rong Village. These attributes were grouped into four nodes.

4.2.1.1. Leadership

Leadership in Bang Rong community emerged after the community crisis between 1970 to the mid 1990's. The leadership strategy was based on Islamic doctrines. T(a) and T(b) explained the emergence of leadership that "……*there are four generations of leaders . These are separated by age. T(b) is latest generation and W, C, M(a) are the first generation. We are the volunteer, (we work by) spirit not occupation…...the leadership is duty which (is) specified by God*".

The importance of leadership was supported by the view of an outsider working for the local municipality who explained how leadership at Bang Rong was well known to other communities and authorities. *"They have good potential and strength of leadership, [it is] seen and known through Paklok Municipality meeting. The Phuket provincial officers are always learning and trying to conduct a new project in (Bang Rong) community"* (LA). The reasons why these leaders were so highly regarded was described by Y that "*we respect the leaders of our village, they sacrifice to public".*

The leadership training programs were conducted with the support of the Mosque Organization [M(a), W]. The training activities included i) exchanging and sharing the knowledge and experience with other communities, ii) internal discussions through religious gatherings and ceremonies and iii) the community development activities funded by external organizations in terms of natural resources protection, funding management and CBT development.

Strong leadership was seen as the main success factor for nurturing CBT. This subsequently influences the establishment of many self-managed groups and community businesses including a community restaurant, several CBT attractions and the community pier. These activities generate income for the residents as well as help protect natural resource while increasing the community participation in tourism. Extensive networks established by the

community leaders with external organizations that could promote Bang Rong as a destination, help with tourism product development, provide marketing of the products and deliver tourists to the village. In addition these networks help recruit funding to create a learning center for Sufficiency Economy and CBT, sanitary toilets, mangrove walkway maintenance and improve local landscaping.

4.2.1.2. Governance

According to the Bang Rong Mosque Organization leaders, the Mosque Organization management utilized religion, financial capital and human resource as its strategies. Islam gives direction, financial resources are an instrument, and human resource is the heart of the operation [C, M(a), and W]. The Mosque Organization was set up to take the responsibility for community development. The organization is the key in monitoring and regulating tourism through selecting tourism operators, tourist markets and enforcing rules according to the Islamic guidelines. For example; alcohol and dogs are not allowed in the community and visitors must wear polite cloths. Control of tourism was important to prevent its negative impacts as M(a) stated that "….*these rules were strategic in screening tourists and investors"*. Among the Muslim villagers, rules are enforced through sanction by the Mosque Organization as described by C that"….(if) *someone who is Muslim in this village,(does) not follow the Prophet teaching such as addicting to illegal drug, gambling, thief, and whatever, the Mosque Organization will boycott them. They can't join us in the religious ceremonies, unable to worship to Allah's kindness at mosque, and don't get a zagat[2] from us".* These values were utilized in selecting local residents to become a "host" and maintaining the quality of their CBT operations.

The Mosque Organization also provides stable funding for new initiatives through the Al-Amanah Islamic Saving Group. This allows the development of new tourism projects such as a nature trail in the mangroves, a learning center for Sufficiency Economy and CBT and a planned tourist call center. Having an internal funding source also reduces overdependence of the community on external aids. In addition, the community has exhibited self- management through proactive policy with the aim to develop their own community under

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[2] Donation which Islamic teaching specifies that the person with excess possession must give to the poor (Islamic Bank of Thailand or IBANK, 2010).

the guideline of religious teaching. The motivation behind being self-reliance was elaborated by W.

> "…..*We tried to solve a poverty problem so first step we analyzed the causes. We found the policy of the politician to be the reasons for these troubles because they (villagers) looked forward to the politician's promises.*"

This reason was further supported by M(a) that "…..*our local residents at this time believed and trusted the promises but there was no action. When they (politicians) left their position, also the plans were over*". Distrust of external aid was also reflected in C's statement that "*these situations taught us which person promised but no action, and was 'unbelievable' (*untrustworthy*) person*". Therefore, the first generation of leaders strived for community "self-management" before asking for outside help [M(a)].

Several community projects such as a local market, a local water supply system, a nursery school, a pier and the CBT destinations were organized and funded by the community itself. Nevertheless, external aids remain important for the expansion of the community project as raised by C in the community meeting that "*after we set the system that is self-management, then we promote our projects to the government sectors. The reason why we do this, (is because) they (government) have much more budget for support and maintenance of these projects than the community*". This was exemplified by the "walkway" project. The villagers adapted the idea of the walkway from other places and built it with local resources and workforces and then invited the local authority to participate. This was positively received by the authority as LA affirmed that "……*their (villager) projects also generate profits to the whole municipality. That is called 'win-win' situation*".

4.2.1.3. Education and awareness

Human resource management was significant in sustaining CBT development in Bang Rong. Many activities were created by a youth group such as a "young blood campaign" and "youth guide campaign". The aims were to train and educate the next generation of leaders and active citizens in Bang Rong Village. These activities focused on producing a long-term and quality development of CBT in the community.

The informants identified the most successful initiative of CBT as 'the young blood campaign' in which children in the youth group produced signs for the mangrove species along the walkway and learn English language for tourism. All activities were aimed to increase youth participation in the development of their village (Y).

Educating and enabling youth to become leaders were seen as a priority by the current community leaders. This is reflected in M(a)'s statement "…..*the youth subgroup is now essential for our community. We need leaders of the next generation who have a volunteer spirit like us"*. This was supported by the W who stated that *"…at present, we train the youth group through conducting a new campaign and invite them to participate the community meeting to give their opinion"*. These activities are essential in motivating and promoting a high sense of belonging among the young.

In addition, the earning from the CBT was offered to the community youth in the form of scholarships to study economics, religion and governance at foreign universities and pharmacy and education at Thai universities. This initiative aims to create high sense of belonging towards the community in the scholarship recipients. This was explained by C that "*the scholarship is offered to the youth to go to the region which speaks mainly Arab language such as Jordan, Egypt, so they come back to be the spiritual leader in our village*". Skill development for the youth in Arabic was seen as vital for youth leadership development and increasing sense of community because it would allow for the understanding of the Quran in Arabic [M(a)]. The hope is that *"they will come back to their birthplace (Bang Rong)"* (W). These education opportunities were not limited to Islamic teaching as the community has a plan to hire teachers for both religious and secular schooling, and establish a pharmacy to promote tourist safety and village health (C).

Other skill sets were also highlighted to improve human resource potential. L raised in a community meeting that "*another essential knowledge which our village needs right now (is) English language, the AEC (*ASEAN economic community*) is coming and CBT needs this skill, generally*". Interestingly, many informants did not relate a high sense of belonging to Islam but stated it as a general idea. For example, Tx suggested that "*the high sense of belonging came from the village working as a unity"*. "Love for the birthplace" was repeated by many informants whether it is related to Islam or not, this can be seen in Y's statement that *"…..we will*

create activities that support and teach youth to come back to the place of their birth". This highlights the importance of emotional connectedness and human relationships between the individuals in the society on the development of the community.

4.2.1.4. Collective action

People's participation was vital for the success of the CBT. In Bang Rong, community actions have often been stimulated by the presence of threats and pressure such as externally initiated development projects that affect community welfare. The news or perceptions of threats were powerful motivators for collective actions among the community members. When managed, pressures could enhance collaboration within the community.

Two events in the community exemplified such united response from Bang Rong Village. Firstly, the community restaurant built by the villagers was initially condemned by the Forestry Department as building in mangroves was considered destructive to the environment. When the Department came to take down the structure, the leaders gathered local residents using the Mosque loudspeaker system to stop the demolition and presented the residents viewpoints and needs for development.

The second event was the protest against the dredging of local canals. Two years after the 2004 Tsunami, the government dredged the local canals to remove sand moved by Tsunami, the removal of sand affected ecosystems in the area. This sparked the community protest which T(b) described as "*...it (dredging) affected the local fisheries by changing the ecosystem. Next time of dredging, local residents congregated and protested and won".* These events demonstrated the power of collective actions by the community in overcoming external pressure.

The trust and respect of the members towards the community leaders were seen as key to community leadership. This was reflected in M(a)'s statement that "…*local residents are power to the leaders because they trust and have faith in us who work at the mosque*". The expectation of the individuals to participate in community activities was also related to religious teaching as mentioned by T(a) that *"the role of each person was selected by Allah so we can't avoid this (duty)*". Collective actions in Bang Rong community can be stimulated by both external and internal pressures. Strong social capital was the key in generating

community response towards external pressure while moral obligation and religion acts as internal pressure for actions.

4.2.2 Limitations of CBT in Bang Rong

Despite the positive attributes of Bang Rong community for CBT, potential barriers and limitations were also found in the community. If left unaddressed, they may lead to problems and negative impacts of CBT development. These attributes are grouped into three themes.

4.2.2.1. Lack of human resource

The problem mentioned by most informants was the lack of new generation in the community workforce. Current CBT members were volunteers who work because of community spirit. The burnout of these volunteers was likely as W mentioned that "*now, we are old group, with volunteer spirit however, we each have multiple-position. We can't spend much time in the community so we are instructing to next generation of leaders*". Finding young people to work on voluntary basis was seen as difficult. The problem is partly due to the low economic benefits for CBT volunteers as described by M(a).

"*we know it is a problem of economic*". The CBT which is established from self-management, really do not offer high-salary. Recently, we have T(b) who managed the CBT group, and Y who help produce workforce activities, however ,we must train him much more and it takes long-time". The urgency to create new leaders was apparent in the comment by C.

"*It is a very big problem now, we do not have enough workforces. Soon, we will have to be a supporter to the new generation, not taking action by ourselves. We need a sustainable development. This is a reason to create 'leader of the next generation', who should be appointed to continue from us....*"

This problem is also apparent to an outsider such as T(a) who mentioned that "*In the past, I connected and worked together with the first generation leader, M(a), and now M(a) has some illness so I worked with T(b), the next generation must stepped up instead. I agreed with them (leaders) that the creation of next generation leader is very important*".

This lack of a workforce was also linked to the shortfall of being self-funding according to Tx. "*This is a disadvantage of self-management by the community, not high pay and lots of sacrifice*"(Tx). Another view highlighted the need to increase knowledge in the young generation as raised by L that "*learning is very important for producing potential employees, how would they (youth) come back to develop here? That's a big serious (issue)*". This topic was repeatedly brought up in all community meetings and highlighted as a significant and necessary problem to solve.

4.2.2.2. Lack of knowledge for social change

In Bang Rong, the gap in knowledge and skills to respond to changes is present in the area of IT and social changes. In the past, the community had its CBT website created by a third party but it was discontinued due to the high expense and lack of knowledge and skill in IT among the community members. This was explained by C.

"*We hired a website production company who made the Bang Rong CBT website and paid ten-thousand Bath per month. We used that for one year, then we stopped because it was expensive. We wanted to create the CBT website but we haven't had these knowledge and skill*".

Recently, the Mosque Organization attempted to address this problem in the lack of IT skills in the community by organizing IT training for the youth group [M(a)]. There is a pressure for the community to develop its communication and marketing channels. This was realized by key actors as stated by Y that "…*we have a new assignment which will be useful. They are tourism call center in Bang Rong Village (and) the CBT website which we already had but it was expired about two years ago*". The need for the community to build its own expert in modern knowledge such as IT in order to adapt to change is evident. This is demonstrated in Tx's proposal.

"*If we will create the CBT website, we should be 'admin' ourselves for saving the budget of the Mosque Organization. And the admin who has to understand the whole of Bang Rong CBT and the connection among these groups such as (if) the tourists call to Bang Rong call center, the admin can answer the questions, not call to other people*".

The weakness in knowledge and skill was attributed to the generational gap as admitted by C that "…..*we have no expert in IT so this is a weakness of the community. Most leaders of community are more that 35 years old, they lack the interest and expertise in these areas*".

Despite the fact that IT skill was seen important for the CBT development, there were also concerns about the youth addiction to the internet and online games. This was raised by Tx that "*we have to manage and put in zoning for internet shops to be far away from the mosque*". This exemplifies the potential conflicts between the community needs and social changes which are influence of by intergenerational gaps.

Meanwhile, there are some negative changes which have already happened and required community actions. Bang Rong Village was reported a risk area of illegal drug transport route by many newspapers (Siangtai, 2011). This is known to several community members. L expressed his embarrassment in his statement that "*our community is the most infamous for illegal drugs….when people asked me about Islamic doctrines against drug usage….I am embarrass*". There were also concerns that facilities constructed for tourists may be used by illegal activities as mentioned by W that "*a walkway through the mangrove can be used for unlawful purposes, we should create the door at the entrance of the walkway*". These issues of drugs and illegal activities will inevitably affect the community members if no proactive measures are put in place to prevent them.

Social changes are inevitable and can bring both advantages and disadvantages. The community need to adapt and respond to these changes and their actions will determine the outcomes on their well-being.

4.2.2.3. Lack of bridging social capital

The strong network and cooperation among Mosque Organization members demonstrated high networking social capital. While this was beneficial for gathering a workforce and allocating resources, over-reliance and group think can hinder the community progress. This was mentioned by M(a) that "*this is the disadvantage of too much trust on leaders, they (villagers) do not participate in community development plan, or involve in the CBT*". Through observation in community meetings, Bang Rong Village demonstrated high bonding

among the Muslim members under the Islamic guidelines but lack external networks with organizations outside the community. This limitation has been noticed by some members as commented by Tx that "*now, when we make appointment at the mosque, it's the old and same members who join us. There is no new and broader ideas, no new participation*".

It is noteworthy that participation in Bang Rong is driven mainly by religion. This is reflected in most of the informants' statements. For example, C commented that "*we have to use the religious ceremony to recruit participation from other local residents*". This was agreed by others which identified "personal belief and faith of God's command" as a good *"tactics for recruiting community participation"* [L, T(a)]. The lack of non-religious incentives and interactions with non-Muslim residents and organizations can potentially be a hindrance in community adaptation in a rapidly changing global economy.

Analyses in community key success factors and impediments allow an insight into how the CBT knowledge is influenced by the community organization and the Islamic religion. This leads to the consideration of components in KMS which is discussed in Section 4.2.3.

4.2.3 KMS components of community key success and limiting factors

From the data gathered from various sources, the components of Bang Rong KMS can be conceptualized in Figure 4.3.

Data	Information	Knowledge

Disorganized

Tacit knowledge

Unprocessed

Capturing *Capturing*

A) In-depth interviews

B) Community and Government

Meetings

C) Desktop research

Analyzing *Analyzing*

Word Frequency

community

In-depth interviews

(Appenxix III - 1)

tourism community

CBT literatures (Appendix III - 2)

tourism

Islamic tourism literatures

(Appendix III - 3)

Explicit knowledge

Sharing *Sharing*

Key success factors

i) leadership

ii) governance

iii) education and awareness

iv) collective action

Limitations

i)lack human resource

ii)lack of knowledge for social change

iii)lack of bridging social capital

Figure 4.3 The KMS components of key success and limiting factors in Bang Rong.

As shown in Figure 4.3, success and limiting factors were captured from the tacit knowledge of various stakeholders. This data was initially a collection of disorganized and unprocessed facts which were presented into systematized data by word frequency using NVivo software (Section 3.2.5 in Chapter 3). Interview data were transcribed and coded using the

software to analyze recurrent themes from word frequency. These themes were then used to derive the key success factors and limitations.

The mapped KMS components provide a basis for a KMS model (Section 2.1.2, Chapter 2). The need for information that "makes decision making easier" (Awad and Ghaziri, 2003) was prioritized highly by Mosque members (7 percent or 23 people from the internal community group). The knowledge needed are those that can support good leadership, collective action, governance, and education and awareness and reduce limitations in the lack of human resources, the knowledge of social change, and the bridging social capital (Table 4.1).

Table 4.2 The community feedback on key success factors and limitations

Key success factors	Rank	Agreement level	Limitations	Rank	Agreement level
Leadership	1	75%	Human resource	1	86%
Collective action	2	64%	Knowledge for social change	2	62%
Governance	3	61%	Bridging social capital	3	52%
Education & awareness	4	50%			

Table 4.2 shows relatively high agreement in the results from Mosque members. Leadership received the highest confirmation as a success factor and the lack of human resource was seen as the limitation by most Mosque members.

4.3 Key knowledge for Bang Rong tourism

This section reports data from the field survey with two groups. The first group included visitors to Bang Rong on a study trip and Phuket residents, who live outside the village.

The second group included the internal community members such as Mosque members, Bang Rong residents and tourism operators who live in the area (Table 3.5). These results highlight the important tourism information which CBT stakeholders expect, the preferred channels for disseminating tourism information, and activities that are required to improve tourism in Bang Rong.

4.3.1 Tourism information for stakeholders

Tourism information listed in the questionnaires follow the example from the CBT-i or the Thailand Community – Based Tourism Institute (CBT-i, 2013) and the existing information that Bang Rong provided for tourists. Table 4.3 shows the level of importance of each item of information that is perceived by different sample groups.

Table 4.3 The average score and rank of tourism information by the internal community, Thai visitors and international visitors.

	Internal Community	Visitors	
		Thai	Oversea
Safety	3.565 (1)	3.661 (1)	3.280 (3)
Tourism information center and contact number	3.528 (2)	3.563 (2)	3.226 (5)
Attractions and local products	3.525 (3)	3.366 (9)	3.387 (1)
Rules and regulations	3.481 (4)	3.503 (3)	3.247 (4)
Religious importance in community	3.432 (5)	3.459 (5)	2.860 (10)
History	3.423 (6)	3.492 (4)	3.118 (7)
Transportation route and access	3.388 (7)	3.372 (7)	3.301 (2)
Accommodation	3.383 (8)	3.355 (10)	3.043 (8)
Cost of travel programs	3.386 (9)	3.372 (8)	3.161 (6)
Self-management of the community	3.232 (10)	3.410 (6)	2.968 (9)

Table 4.3 shows the numbers inside the bracket which represents the rank within sample groups. Safety is among the top three most important tourism information ranked by all sample groups. Information on local attractions and local products was ranked the highest by

international visitors among other information. Tourism information center and contact number was considered very important by both the internal community and Thai visitors while the international tourists placed greater priority on transportation route and access.

4.3.2 Channels for providing tourism information

The communication channels were listed following the existing as well as planned activities by Bang Rong Mosque Organization Table 4.4 shows the ranking of the preferred communication channels by different sample groups.

Table 4.4 The ranking of communication channels for tourism information by the internal community, Thai and oversea visitors.

	Order	Internal Community	Visitors	
			Thai	Oversea
Facebook	1	41% (1)	55% (1)	33% (2)
	2	27%	23%	37%
	3	19%	13%	19%
E-book	1	8%	10% (3)	2%
	2	34%	19%	6%
	3	19%	23%	16%
Website	1	36% (2)	27% (2)	56% (1)
	2	16%	44%	33%
	3	37%	25%	6%
Mobile application	1	11% (3)	5%	4% (3)
	2	18%	10%	20%
	3	19%	35%	53%
Not decided		4%	2%	-

*Remarks: Percentage was computed on the basis of a three rank order (1 = highest rank).

The numbers in Table 4.4 show the percentage of respondent who gave a specific rank to the item and the numbers inside the bracket represent the overall rank from the analysis within each sample group.

Facebook received the highest ranking by the internal community and Thai visitors while website was ranked the highest by oversea visitors. Mobile application received considerable interest from the internal community and overseas visitors. E-Book was some interest by internal community but very little from the visitors. There were also suggestions for other channels of communication such as i) display booth and ii) Line (social media popular among Thai users) which were mentioned by respondents from internal community. Thai visitors suggested information board, word of mouth advertisement and television. Oversea visitors recommended putting information on Tripadvisor website, Wikitravel page, sending e‑mail (4%), putting sign map (3%), travel book, and leaving brochures at tour agencies and hotels.

4.3.3 Activities to improve Bang Rong tourism

The list of activities was derived from key success factors and limitations summarized in Section 4.2.1 and 4.2.2. Table 4.5 presents the ranking of the activities according to the views of different sample groups.

Table 4.5 The ranking of activities to improve tourism in Bang Rong by the internal community, Thai and oversea visitors.

	Order	Internal Community	Visitors	
			Thai	Oversea
Training about tourism knowledge	1	20% (3)	29% (1)	26% (2)
	2	15%	16%	12%
	3	12%	15%	11%
Training in IT skills	1	6%	12% (3)	5%
	2	12%	15%	10%
	3	13%	12%	10%

Table 4.5 The ranking of activities to improve tourism in Bang Rong by the internal community, Thai and oversea visitors. (cont.)

	Order	Internal Community	Visitors	
			Thai	Oversea
Training about leadership	1	23% (1)	12%	3%
	2	11%	12%	6%
	3	14%	14%	5%
Training villages in adaptation to external change	1	2%	7%	2%
	2	8%	8%	12%
	3	11%	11%	17%
Improving the community participation in development	1	17%	21% (2)	28% (1)
	2	17%	19%	22%
	3	13%	14%	12%
Training about language for tourism use	1	22% (2)	8%	25% (3)
	2	22%	13%	13%
	3	20%	20%	30%
Improving tourism marketing to be more international and up-to-date	1	10%	9%	10%
	2	14%	17%	26%
	3	15%	14%	14%

*Remarks: Percent was computed on the basis of a three rank order (1 = highest rank)

The numbers in Table 4.5 show the percentage of respondent who gave a specific rank to the item and the numbers inside the bracket represents the overall rank from the analysis within each sample group.

The top activities to improve Bang Rong tourism seen by all groups were training about tourism knowledge (ranked 1 by Thai visitors, ranked 2 by oversea visitors, and ranked 3 by internal community), improving the community participation in development (ranked 1 by oversea visitors and ranked 2 by Thai visitors), training about language for tourism use (ranked 2 by internal community, and ranked 3 by oversea visitors), training about leadership (ranked 1 by internal and Thai visitor), and training in IT skills (ranked 3 by Thai visitors). Others

suggestions were the overall community development (internal community), improving the community infrastructure such as roads, promoting tourism at Sub-District level (Thai visitors) and developing environmental friendly tourism (oversea visitors).

The result in this section provided the community with the overview of its CBT development and needs for knowledge and enabling system to improve on the existing knowledge and create changes. This contributes to the development of KMS model for Bang Rong CBT which is discussed in Section 4.4.

4.4 KM from community immersion

Using a pragmatic approach (Morgan, 2007), a series of activities were attended and organized by the researcher (Table 3.4, Chapter 3). This section identifies the learning outcomes from the community during the course of this research which is depicted in Figure 4.4.

The circles in Figure 4.4 represent the community learning outcomes while the rectangles illustrate the ideas interjected by the researcher. The line in the figure indicates the increasing acceptance and inclusion of the researcher into the community development activities.
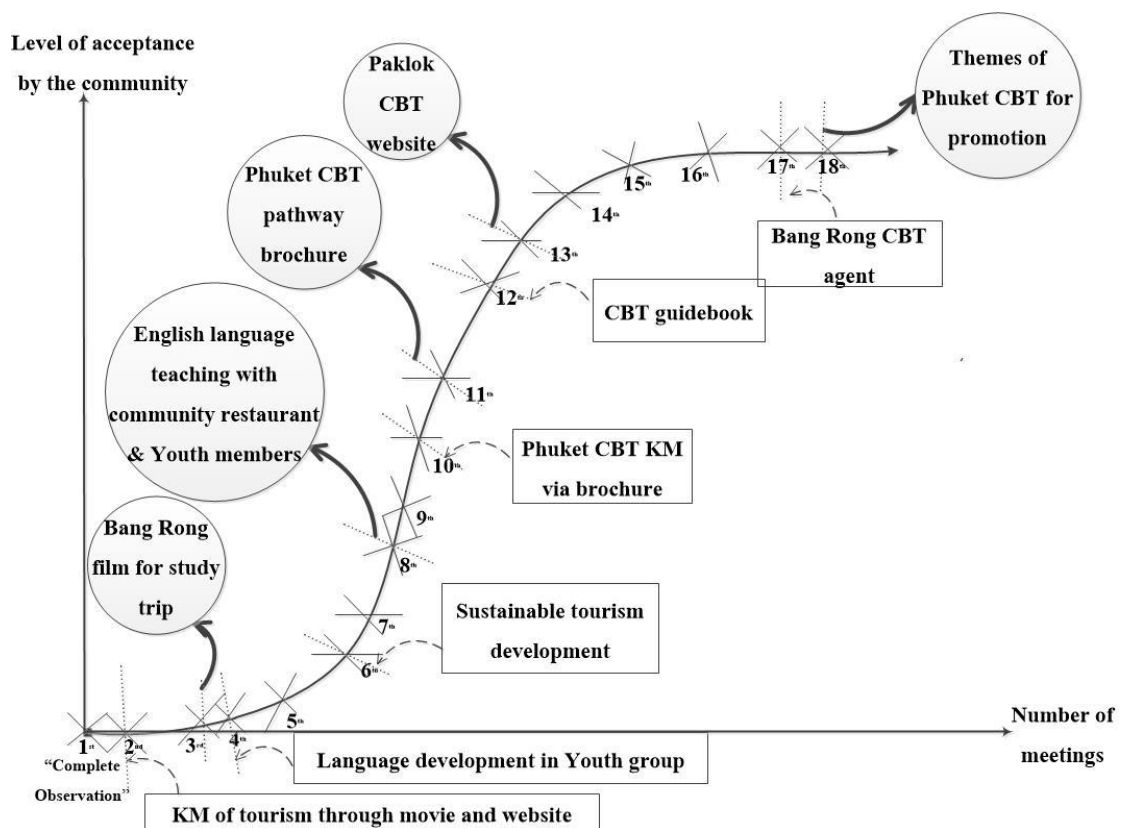
Figure 4.4 The learning outcomes from KM activities in Bang Rong during the research.

Figure 4.4 shows the shifting role of the researcher from a participant observer to an accepted member in the community. During the research, the researcher proposed several ideas which related to a community campaign and the research framework. During the first interaction, the researcher was "the complete observer" and subsequently became "the participant observer" with an increasing level of participation from 2nd to 17th interactions (Section 3.2.4.3). During the second meeting, the researcher proposed the use of KM through film and website production campaign with the Bang Rong youth group which was then the main activity in the third meeting. The website was followed up in the 13th meeting by Mosque members. In the fourth meeting, this researcher proposed tourism language development to Mosque members which lead to the activity in the eighth event in which a teacher from Phuket Rajabhat University taught English to the community restaurant staff and youth members. At the 10th meeting, the researcher proposed brochure publishing to Phuket CBT which resulted in the decision by Phuket CBT members to survey CBT routes in the 11th meeting. During the 16th, the researcher was a representative for

Bang Rong in Phuket CBT meeting and proposed themes of the booth for promoting tourism which was accepted during the 17th meeting by Phuket CBT members. Furthermore, sustainable tourism development and CBT guidebook were suggested at the sixth and 12th meeting and stimulated the community meeting in the future.

The record of the community outcomes as a result of KM activities initiated by the researcher contributed to the design of sustainable CBT strategy discussed in the next section.

4.5 CBT and KMS model

The analysis of CBT development through the Islamic principles and cultural appreciation in Bang Rong has provided the basis for the conceptualization of KMS in a community context. The KM processes and outputs are identified based on the concept of knowledge hierarchy and transformation discussed in Chapter 2 (Section 2.1.3). This section draws upon the findings from Sections 4.1 to 4.4 which have demonstrated different methods of acquiring data and processing it into useful information, knowledge and wisdom that can be used to solve problems and direct actions in the community. These are described as types, methods, processes, phases and outputs of KM in Bang Rong CBT in Table 4.6. The table describes the processes which can be mapped to different types of data and knowledge that can contribute to the development of sustainable CBT within the specific cultural and spiritual framework.

Table 4.6 The KM processes in Bang Rong CBT

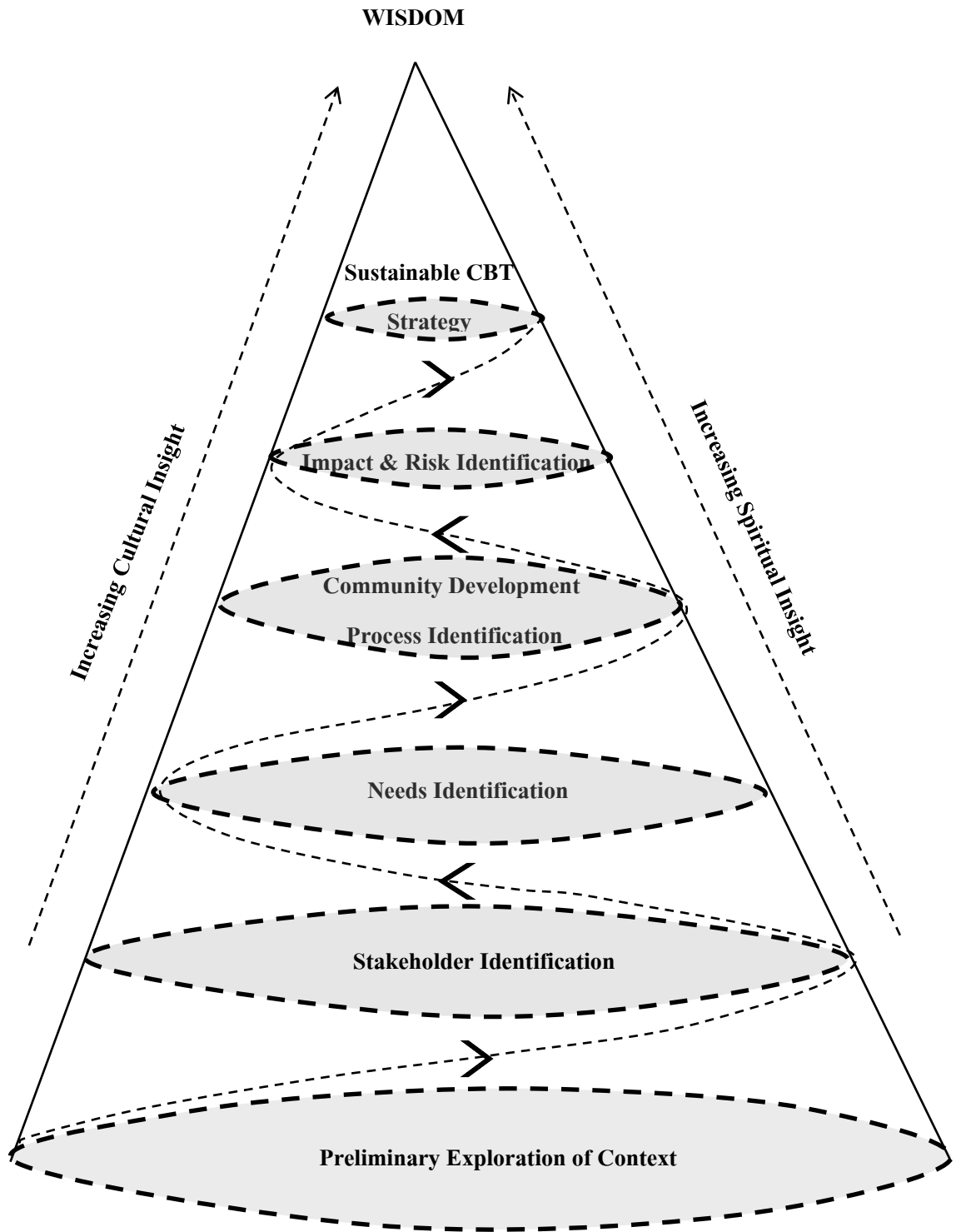| Types	Methods	Processes	Phases	Outputs
Prerequisite	Complete observation	Preliminary Exploration of Context	Scanning	- Spiritual and cultural insights
				- Understanding community contexts
Data	Immersion	Stakeholder Identification	Problem solving	- Contributor / Network / Partner both internal and external
				levels / Market
Information	Interview, survey, need analysis	Needs Identification	Abstraction	- Tourism product design (Tourism information)
				- Community development program
				- Business program
Knowledge				
Tacit	Participant observation	Community Development Process Identification	Absorption	- Community development plan (Host acceptance)
Explicit	- Expert opinion	Impact and Risk Identification	Impact	- Community rules and regulations
	- Cost-benefit analysis			- Tourist education (Guest experience)
Wisdom	- Facilitation	Sustainable CBT Strategy	Institutionalization	- Sustainable CBT plan insight lesson learned
	- Community visioning	Identification		

The KM processes in Bang Rong CBT are mapped to the reality of data collection in this research to the types of knowledge and the KM practices previously discussed in Chapter 2 (Figure 2.3 and Table 2.1 respectively). This helps the understanding of KMS in Bang Rong and how it has been and can be used to develop sustainable CBT. The holistic understanding of the area and its contexts is a prerequisite for working with the community. Gaining the spiritual and cultural insights is especially important in Bang Rong as it aids in recruiting acceptance from the community that allows for further exploration of KMS implementation through the community immersion and interaction.

The community knowledge needs are driven by problem solving. This necessitates the gathering of data and tacit knowledge which can come from immersion and participant observation. The outcomes of these processes are the awareness of key stakeholders, available resources (tourism potential) and target market (tourists).

Needs identification from the stakeholders for tourism products provides an opportunity to turn the received information from interviews and surveys into the insights that contributes to the business development plan for the community. Subsequently, expert opinion and cost-benefit analysis are sought to identify impacts and risks which can be used to formulate the community rules and manage guest behaviors and experience.

Finally, community visioning and feedback can be used to identify sustainable CBT strategies in the community. This requires the institutionalization of all the KM or learning processes and their outcomes into the community implementation plan.

The analysis of these knowledge components, transfer processes, and outcomes in Table 4.6 can be summarized in a KMS model in Figure 4.5.

WISDOM

Sustainable CBT

Strategy

Impact & Risk Identification

Community Development

Process Identification

Needs Identification

Stakeholder Identification

Preliminary Exploration of Context

Increasing Cultural Insight

Increasing Spiritual Insight

Figure 4.5 The KMS model for Bang Rong CBT development

The model of KMS for CBT development in Bang Rong consists of six layers of learning processes. The top layer represents wisdom as the outcomes while the base layer signifies data from general observation of the case study area. The layers are shown as the knowledge hierarchy as outcomes from several processes ranging from uncategorized data, organized information and synthesized knowledge. Data can be collected through observation and stakeholder identification. Information is organized by the prioritization of the stakeholder demands and needs for problem solving in the community. Knowledge is synthesized through the identification of community development plan, and impact and risk analysis. Finally, the insights and lessons learned through all of these learning processes can be used to design sustainable CBT strategies and action plans for the community.

This model highlights that KMS is not a linear process but should be seen as a dynamic cycle which necessitate the interactions from all layers. In addition, an effective KMS needs to provide a mechanism for transforming invisible or tacit knowledge into visible or explicit knowledge to increase accessibility for users. Through usability and exchange, data and information can be transformed into a purposeful knowledge and wisdom.

This KMS model conceptualizes the current state of CBT development in Bang Rong and summarizes the resolutions for the three RQs in this study. The insights into the cultural and spiritual contexts including the lessons learned from the community history are essential for sustainable community development especially for CBT (RQ 1). The model demonstrates how to transform data and information into knowledge and wisdom that are geared towards problem solving and sustainability (RQ 2). The model also suggests that the outcomes of KM processes can contribute to the improvement and changes towards the preferred future that are identified by the stakeholders (RQ 3). Remarkably, an advantage of KMS helps to clarify the vision of the community and indicators for CBT.

In conclusion, the KMS model for Bang Rong identifies several learning processes which can be used to guide the community development and its implementation.

CHAPTER 5

Discussion and Conclusion

This research has explored how the KMS can contribute to sustainable CBT development. It analyzed the community changes and responses to the learning activities and KM processes during the study period. The outcomes from these processes can be used to conceptualize the KMS model in the study area. The results were reported to the community representative to gain feedback and evaluate their impacts (RQ 3). This chapter provides the summary of the outcomes from the previous chapters as well as conclude the findings of this study.

Chapter 1 identified the problem in the lack of knowledge in KMS for CBT and the RQs. Chapter 2 reviewed the definitions, concepts and theories related to the RQs. The structure for the data collection and analysis were described in Chapter 3 which mainly involved document analysis, in-depth interview, observation through various roles of the researcher. Chapter 4 provided the results which identified the components of KMS and described the KMS model for Bang Rong CBT development. The findings highlight that the awareness of cultural contexts, the impacts of the development, the stakeholder' expectations and satisfactions are key to create and transfer wisdom in the community.

In order to evaluate the applicability of the KMS model proposed (RQ 3.2 and 3.3), the results were presented to the community leaders to gain feedback about the way forwards and their vision for sustainable CBT in the area. The community responses are discussed in Section 5.1 and 5.2.

5.1 Community response towards sustainable CBT

Bang Rong leaders were satisfied with the results of the research and the level of involvement of the researcher in the community. The major contribution of the KM activities (Figure 4.4) especially from the researcher immersion in the community is captured in the following statement.

"these information are useful knowledge that can assist the CBT planning and encourage the Mosque Organization to really understand their identity from the internal and external community views, especially Bang Rong CBT group" (W).

The leaders showed the realization that the Mosque Organization needed to develop Bang Rong CBT into a Small-Medium Enterprise or SME in order to sustain financially in a long term.

The community direction, according to a Mosque Organization leader, is described as *"....although, we (Bang Rong) need to change CBT to be more commercial, distinctive community feature in spirituality should be maintained and ownership in business should be by ourselves,...."* [M(a)]. This shows the acknowledgement that it is a challenge for the community to plan for tourism and operate CBT in the way that will be sustainable in all aspects.

Because tourism can change the identity of community, it is imperative that the local people are educated in the way that empowers them to manage tourism and its impacts in the direction that they desire. The desirable CBT future was described by Bang Rong community representatives as a successful business which maintains the identity of community, environmental conservation and creates new cooperations among CBT Phuket both at internal and external levels.

Moreover, the attempts to implement such goals have already been evident through the creation of CBT website for nine villages in Paklok Sub-District by Paklok CODI to promote the knowledge exchange within the Paklok CBT members (Paklok community, 2015). This campaign is facilitated by the Petroleum Authority of Thailand or PTT officers who volunteered to be an administrator of Paklok community website.

However, the challenge remains in finding a full time administrator of the website to update the information regularly. For external collaboration, Bang Rong leaders have been instrumental in strengthening collaborations for funding and stimulating learning among Phuket CBT members.

This highlights the need for a KM agent which can act as a facilitation in analyzing and communicating the tourism demands from all stakeholders and create an opportunity for community KM processes that can lead to collective decision making for sustainable CBT development.

5.2 Sustainable CBT indicators

As a result of KM processes in this research, the indicators for sustainable CBT have also been identified. According to the mosque leaders, desirable CBT indicators can be divided into two dimensions (Table 5.1).

Table 5.1 The indicators of sustainable CBT in Bang Rong

Numerically Measurable

✓ Increasing profits distribution to internal community.

✓ Increasing tourist satisfaction (Rating scale)

✓ Increasing number of human resources who work with CBT

✓ Increasing support from the external organization, such as funding and projects.

✓ Numbers of recorded information and knowledge related to CBT.

Numerically Immeasurable

✓ Increasing quality of tourist.

✓ Increasing tourist satisfaction (tourist education, compliance to community rules and regulations).

✓ Increasing ecological heath conditions.

Numerically measurable indicators consist of increasing of income sharing, tourist satisfaction (rating), human resource of CBT, amount of external organization support, and recorded information and knowledge for CBT. Numerical immeasurable indicators consist of increasing tourist satisfaction (experience quality), quality of tourist education and compliance to community rules and regulations, ecological health condition such as mangroves and marine animals, and decreasing of tourism impacts in Bang Rong.

The measurement of these indicators was discussed by the leaders. Although there was no conclusion on the methods for monitoring, the discussion raised the awareness of the need to evaluate and gain feedback from tourists and wider community members.

From the above findings, sustainable development of CBT in Bang Rong requires the following KM processes:

i)   Exchanging experience and data within the community to as well as with external communities.

ii) Making a business plan in the community for both short-term and long-term goals.

iii) Training community members to improve its human resource in tourism knowledge and IT skills.

iv) Assigning appropiate responsibilities and tasks within the organization.

v)   Empowering the 'youth group' to be more active in leading activities.

vi) Supporting youth in the community by providing them with scholarships to expand their horizon.

vii) Creating a KM intermediary agent, whether as an individual or collective, for the promotion of knowledge exchange and continuous flow of learning outputs.

In conclusion, this research proposes the KMS model that can apply to the CBT. The KM processes need to take into account the cultural and spiritual insights which cannot be obtained from outsider view only. Understanding the community characteristics as an insider helps the researcher gain acceptance and trust so that KM activities could be implemented in a meaningful way.

A knowledge flow is important in analyzing disperse fact and capture tacit knowledge into explicit knowledge and wisdom which become a vital basis for enhancing the progress toward sustainable CBT development. This calls for a continuous cycle for knowledge exchange and sharing among stakeholders. The study concludes that sustainable CBT can be achieved through the use of appropriate KM processes.

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Appendices

Appendix I

Population and households in Paklok Sub-District Municipality

Table I - 1 Population and households in Paklok Sub-District Municipality

Village No.	Village	Household (2013)	Population (2013)
1	Pakcheed	1,022	1,773
2	Paklok	889	1,904
3	Bang Rong	951	2,380
4	Para	761	2,204
5	Naka Island	72	288
6	Aow Por	615	1,232
7	Yamu	470	806
8	Bangla	1,765	2,793
9	Aow Kung	235	835

Appendix II

Questionnaires for internal and external communities

Appendix II - 1 Questionnaire for internal community

บ้านเลขที่.........แบบสอบถามหมายเลขที่..........

<u>แบบสอบถามนักท่องเที่ยวบ้านบางโรง</u>

เรื่อง ระบบสารเทศเพื่อการพัฒนาองค์ความรู้การท่องเที่ยวเที่ยวโดยชุมชนอย่างยั่งยืน; กรณีศึกษาบ้านบางโรง จังหวัดภูเก็ต

ส่วนที่ 1 ข้อมูลทั่วไป

<u>คำชี้แจง</u>　　　　โปรดทำเครื่องหมาย ☑ ในช่องว่างที่กำหนด ตามข้อมูลที่เป็นจริง

1.เพศ　　☐ชาย　　　　　☐หญิง

2.อายุ　　☐ต่ำกว่าหรือเท่ากับ 15 ปี　　☐16 – 25 ปี　　☐25 – 35 ปี
　　　　　☐36 – 45 ปี　　　　　　　　☐45 – 55 ปี　　☐มากกว่า 55 ปี

3.ศาสนา　　☐พุทธ　　　☐อิสลาม　　☐คริสต์　　☐อื่นๆ (โปรดระบุ)..............

4.การศึกษา　　☐ต่ำกว่ามัธยมศึกษาตอนปลาย / ปวช / หรือเทียบเท่า
　　　　　　　☐มัธยมศึกษาตอนปลาย / ปวช / หรือเทียบเท่า
　　　　　　　☐อนุปริญญา / ปวส / หรือเทียบเท่า　　☐ปริญญาตรี　　☐ปริญญาโทหรือสูงกว่า

5.อาชีพ　　☐ลูกจ้าง – พนักงานบริษัท　　☐รับราชการ　　☐เจ้าของกิจการ
　　　　　☐นักเรียน – นักศึกษา　　　　☐อื่นๆ(โปรดระบุ)...............

6.ภูมิลำเนา　　☐บ้านบางโรง ต.ป่าคลอก　　☐ท้องถิ่นอื่นๆใน จ.ภูเก็ต
　　　　　　　☐จังหวัดอื่นๆ(โปรดระบุ).............................

7.ท่านอาศัยในบ้านบางโรง ต.ป่าคลอก จ.ภูเก็ต เป็นระยะเวลานานเท่าใด
　　　　☐น้อยกว่า 1 ปี　　　☐1-5 ปี　　　☐5-10 ปี
　　　　☐10-15 ปี　　　　　☐15-20 ปี　　☐มากกว่า 20 ปี　　　8. ท่านมี

รายได้หรือได้รับประโยชน์จากกิจกรรมการท่องเที่ยวบ้านบางโรงหรือไม่
　　　　☐มี (ตอบข้อ 9)　　　☐ไม่มี (ข้ามไปตอบข้อ 10)

9. ประเภทกิจกรรม　　☐ธุรกิจการขนส่ง　　☐ธุรกิจอาหาร　　☐ธุรกิจที่พัก
　　　　　　　　　☐ธุรกิจการนำเที่ยว　　☐อื่นๆ(โปรดระบุ).........................

10. ท่านมีบทบาทหรือส่วนร่วมในกิจกรรมขององค์กรมัสยิดบ้านบางโรงหรือไม่
　　　　☐ มี (โปรดระบุบทบาทหรือกลุ่มกิจกรรม)...(ตอบส่วนที่ 2 และ 3)
　　　　☐ไม่มี (ข้ามไปตอบส่วนที่ 3)

ส่วนที่ 2 ปัจจัยแห่งความสำเร็จ และ ข้อจำกัดของการพัฒนาการท่องเที่ยวชุมชนบ้านบางโรง

<u>คำชี้แจง</u>   โปรดเรียงลำดับความสำคัญของปัจจัยแห่งความสำเร็จ และ ข้อจำกัดที่ส่งผลต่อการพัฒนาการ

ท่องเที่ยวโดยชุมชนบ้านบางโรงตามความคิดเห็นของท่าน โดย <u>1 หมายถึง สิ่งที่สำคัญที่สุด</u> และทำ

เครื่องหมาย ✓ ในช่องที่ตรงกับความคิดของท่านมากที่สุด

ลำดับความสำคัญ(1-4)	ปัจจัยแห่งความสำเร็จ	เห็นด้วยอย่างมาก	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างมาก
	1.บทบาท และ ความเป็นผู้นำในชุมชน					
	-จัดตั้งกลุ่มองค์กรจัดการตนเอง (องค์กรมัสยิด)					
	-เพิ่มการกระจายรายได้สู่คนในชุมชน					
	-ป้องกันและดูแลทรัพยากรธรรมชาติในชุมชน					
	-กระตุ้นให้คนในชุมชนมีส่วนร่วมในการพัฒนาการท่องเที่ยว					
	-สร้างเครือข่ายกับองค์กรภายนอก					
	2.ระบบการจัดการในด้านต่างๆของชุมชน					
	-ใช้ศาสนาเป็นแนวทางหลักในการจัดการ					
	-ใช้นโยบายที่เน้นการจัดการและควบคุมโดยชุมชน					
	3.ระบบการศึกษาและความรู้สึกรักตระหนักในชุมชน					
	-จัดตั้งกองทุนการศึกษาเพื่อให้คนให้กลับมาทำงานในชุมชน					
	-ส่งเสริมกิจกรรมของกลุ่มเยาวชนให้รู้สึกรัก หวงแหน และเป็นส่วนหนึ่งของชุมชน					
	4.การทำงานร่วมกันแบบหมู่คณะของคนในชุมชน					
	-คนในชุมชนร่วมมือกันแก้ไขปัญหาเมื่อมีเหตุการณ์ที่กระทบต่อชุมชน					

ลำดับความสำคัญ(1-3)	ข้อจำกัด	เห็นด้วยอย่างมาก	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างมาก
	1.ขาดบุคลากรและทรัพยากรมนุษย์					
	-ขาดแคลนบุคลากรรุ่นใหม่ในการสานต่องานซึ่งส่วนใหญ่เป็นงานอาสา					
	-ผลตอบแทนจากการท่องเที่ยวชุมชนไม่เพียงพอกับความต้องการเมื่อเทียบกับงานภายนอกชุมชน					
	2.ขาดทักษะและความรู้สำหรับการรับมือการเปลี่ยนแปลงทางสังคม					
	-ขาดทักษะและความชำนาญด้านเทคโนโลยีสารสนเทศ (IT)					
	-ปัญหาสังคมส่งผลต่อแนวทางการพัฒนาชุมชน เช่น ยาเสพย์ติด					
	3.ขาดความสัมพันธ์ระหว่างคนในชุมชนและกับองค์กรภายนอก					
	-มีช่องว่างด้านการมีส่วนร่วมของคนในชุมชนเองหรือชุมชนกับหน่วยงานภายนอก					

ส่วนที่ 3 แนวคิดด้านการพัฒนาเทคโนโลยีและสารสนเทศเพื่อการพัฒนาการท่องเที่ยวโดยชุมชน

คำชี้แจง   โปรดให้ความเห็นของท่านในช่องว่างที่กำหนดตามข้อมูลที่เป็นจริง

        1.โปรดให้ความเห็นว่าข้อมูลการท่องเที่ยวบ้านบางโรงเรื่องใดที่ท่านเห็นว่า<u>ควรแจ้ง</u>ให้นักท่องเที่ยวที่เข้ามาชุมชน
ทราบ (ทำเครื่องหมาย ✓ ในช่องที่ตรงกับความคิดของท่านมากที่สุด)

	สำคัญที่สุด	สำคัญ	ไม่สำคัญ	ไม่สำคัญเลย
- ประวัติความเป็นมาของชุมชน				
- กฎระเบียบ ข้อห้ามในชุมชน				
- ความสำคัญของศาสนาในการดำรงชีวิตของชุมชน				
- การดำเนินงานโดยการจัดการตนเองของชุมชน				
- ความปลอดภัยในชุมชน				
- ข้อมูลที่พัก				
- รายละเอียดการเดินทางมายังชุมชน				
- ราคาโปรแกรมท่องเที่ยวชุมชน				
- แหล่งท่องเที่ยวและสินค้าท้องถิ่นในชุมชน				
- สถานที่และหมายเลขติดต่อสำหรับข้อมูลการท่องเที่ยว				
อื่นๆ(โปรดระบุ)........................				

        2.ท่านคิดว่า<u>กิจกรรม</u>ใดที่สามารถพัฒนาการท่องเที่ยวบ้านบางโรงได้มีประสิทธิภาพมากที่สุด
<u>(โปรดเลือกเพียง 3 กิจกรรมและใส่หมายเลข 1-3 หน้าคำตอบโดย 1 หมายถึง สำคัญที่สุด)</u>

.........พัฒนาคนให้มีความรู้ด้านธุรกิจท่องเที่ยวมากขึ้น   ....พัฒนาทักษะความเป็นผู้นำให้คนในชุมชน

.........ส่งเสริมให้คนในชุมชนมีส่วนร่วมในการพัฒนา   ....พัฒนาทักษะด้านภาษาที่ใช้ในการท่องเที่ยว

.........พัฒนาทักษะด้านITให้คนในชุมชน   ....ปรับโลกทัศน์คนในชุมชนให้รู้เท่าทันสังคมภายนอก

.........พัฒนาสื่อที่ใช้ประชาสัมพันธ์การท่องเที่ยวให้ทันสมัยและมีความเป็นสากลมากขึ้น

.........อื่นๆ(โปรดระบุ)...

        3.ท่านคิดว่าช่องทางใดที่มี<u>ประสิทธิภาพ</u>ในการสื่อสารและแลกเปลี่ยนข้อมูลการท่องเที่ยวบ้านบางโรงมากที่สุด
<u>(โปรดเลือกเพียง 3 ข้อและใส่หมายเลข 1-3 หน้าคำตอบโดย 1 หมายถึงสำคัญที่สุด)</u>

.....เฟสบุ๊ค   ....อีบุ๊คส์*   .....เว็บไซต์   .....โมบายแอพพลิเคชั่น*   .....อื่นๆ(โปรดระบุ).........

        4. ระดับ<u>ความพึงพอใจ</u>ของท่านที่มีต่อช่องทางที่ใช้พัฒนาข้อมูลการท่องเที่ยวบ้านบางโรงในขณะนี้
(โดยทำเครื่องหมาย ✓ ในช่องที่ตรงกับความคิดของท่านมากที่สุด)

            ☐ มากที่สุด   ☐ มาก   ☐ ปานกลาง   ☐ ควรปรับปรุง   ☐ ไม่เคยใช้

            ....ขอขอบพระคุณที่ตอบแบบสอบถามค่ะ..

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* อีบุ๊คส์   คือ หนังสือหรือสิ่งพิมพ์ที่จัดทำข้อมูลในรูปแบบอิเล็กทรอนิกส์ซึ่งสามารถเผยแพร่ผ่านระบบเครือข่ายออนไลน์ หรือ ผ่านอุปกรณ์จัดเก็บบันทึก
ข้อมูลคอมแพคดิสก์ โดยสามารถจัดทำให้มีการนำภาพเคลื่อนไหววิดีโอ เสียงหรือเกมส์ มาใช้ประกอบเนื้อหาได้ (ดร.ไพศาล กาณจนวงศ์, 2553)

* โมบายแอพพลิเคชั่น คือ แอพพลิเคชั่นที่ช่วยการทำงานของผู้ใช้บนอุปกรณ์สื่อสารแบบพกพา (สุชาดา พลาชัยภิรมย์ศิล, 2554)

Appendix II - 2 Questionnaire for Thai visitors

แบบสอบถามหมายเลขที่..........

<u>แบบสอบถามนักท่องเที่ยวบ้านบางโรง</u>

เรื่อง ระบบสารสนเทศเพื่อการพัฒนาองค์ความรู้การท่องเที่ยวเที่ยวโดยชุมชนอย่างยั่งยืน; กรณีศึกษาบ้านบางโรง จังหวัดภูเก็ต

ส่วนที่ 1 ข้อมูลทั่วไป

<u>คำชี้แจง</u> โปรดทำเครื่องหมาย ☑ ในช่องว่างที่กำหนด ตามข้อมูลที่เป็นจริง

1.เพศ ☐ชาย ☐หญิง

2.อายุ ☐ต่ำกว่าหรือเท่ากับ 15 ปี ☐16 – 25 ปี ☐25 – 35 ปี
☐36 – 45 ปี ☐45 – 55 ปี ☐มากกว่า 55 ปี

3.ศาสนา ☐พุทธ ☐อิสลาม ☐คริสต์ ☐อื่นๆ (โปรดระบุ)...............

4.การศึกษา ☐ต่ำกว่ามัธยมศึกษาตอนปลาย / ปวช / หรือเทียบเท่า
☐มัธยมศึกษาตอนปลาย / ปวช / หรือเทียบเท่า
☐อนุปริญญา / ปวส / หรือเทียบเท่า ☐ปริญญาตรี ☐ปริญญาโทหรือสูงกว่า

5.อาชีพ ☐ลูกจ้าง – พนักงานบริษัท ☐รับราชการ ☐เจ้าของกิจการ
☐นักเรียน – นักศึกษา ☐อื่นๆ(โปรดระบุ)...............

6.ภูมิลำเนา ☐ท้องถิ่นอื่นๆใน จ.ภูเก็ต ☐จังหวัดอื่นๆ(โปรดระบุ)..........................

7.ท่านเคยมาท่องเที่ยวที่บางโรงมาก่อนหรือไม่
☐เคย ☐ไม่เคย

8.วัตถุประสงค์หลักของการมาบางโรงครั้งนี้ (โปรดเลือกเพียงข้อเดียวที่เป็นจุดประสงค์หลักของท่าน)
☐พักผ่อน กีฬา นันทนาการ ☐ศึกษาดูงาน/สัมมนา/ประชุม
☐ติดต่อธุรกิจ ราชการ ☐เยี่ยมเยียนญาติ เพื่อน ☐อื่นๆ(โปรดระบุ)...............

9. ท่านทำอาชีพหรือธุรกิจด้านการท่องเที่ยวหรือไม่
☐ ใช่ (ตอบข้อ 10) ☐ไม่ใช่ (ข้ามไปตอบส่วนที่ 2)

10. ประเภทกิจกรรม ☐การขนส่ง ☐อาหาร-เครื่องดื่ม ☐ที่พัก
☐การนำเที่ยว ☐อื่นๆ(โปรดระบุ)..........................

ส่วนที่ 2 แนวคิดด้านการพัฒนาเทคโนโลยีและสารสนเทศเพื่อการพัฒนาการท่องเที่ยวโดยชุมชน

<u>คำชี้แจง</u>   โปรดให้ความเห็นของท่านในช่องว่างที่กำหนดตามความเป็นจริง

1.โปรดให้ความเห็นว่าข้อมูลการท่องเที่ยวบ้านบางโรง เรื่องใดที่ท่านเห็นว่านักท่องเที่ยว<u>ควรทราบ</u>ก่อนเข้ามาชุมชน

<u>(ทำเครื่องหมาย ✓ ในช่องที่ตรงกับความคิดของท่านมากที่สุด)</u>

	สำคัญที่สุด	สำคัญ	ไม่สำคัญ	ไม่สำคัญเลย
- ประวัติความเป็นมาของชุมชน				
- กฎระเบียบ ข้อห้ามในชุมชน				
- ความสำคัญของศาสนาในการดำรงชีวิตของชุมชน				
- การดำเนินงานโดยการจัดการตนเองของชุมชน				
- ความปลอดภัยในชุมชน				
- ข้อมูลที่พัก				
- รายละเอียดการเดินทางมายังชุมชน				
- ราคาโปรแกรมท่องเที่ยวชุมชน				
- แหล่งท่องเที่ยวและสินค้าท้องถิ่นในชุมชน				
- สถานที่และหมายเลขติดต่อสำหรับข้อมูลการท่องเที่ยว				
อื่นๆ(โปรดระบุ)..				

2.ท่านคิดว่ากิจกรรมใดจะสามารถพัฒนาการท่องเที่ยวบ้านบางโรงได้อย่างมีประสิทธิภาพมากที่สุด

<u>(โปรดเลือกเพียง 3 กิจกรรมและใส่หมายเลข 1-3 หน้าคำตอบโดย 1 หมายถึง สำคัญที่สุด)</u>

ลำดับ	กิจกรรม	ลำดับ	กิจกรรม
	พัฒนาคนให้มีความรู้ด้านธุรกิจท่องเที่ยวมากขึ้น		พัฒนาทักษะด้าน IT (เทคโนโลยีสารสนเทศ)ให้คนในชุมชน
	พัฒนาทักษะความเป็นผู้นำให้คนในชุมชน		ปรับโลกทัศน์คนในชุมชนให้รู้เท่าทันสังคมภายนอก
	ส่งเสริมให้คนในชุมชนมีส่วนร่วมในการพัฒนา		พัฒนาทักษะด้านภาษาที่ใช้ในการท่องเที่ยว
	พัฒนาสื่อที่ใช้ประชาสัมพันธ์การท่องเที่ยวให้ทันสมัยและมีความเป็นสากลมากขึ้น		อื่นๆ(โปรดระบุ).. ....

3.ท่านคิดว่าช่องทางใดที่มี<u>ประสิทธิภาพ</u>ในการสื่อสารและแลกเปลี่ยนข้อมูลการท่องเที่ยวบ้านบางโรงมากที่สุด

<u>(โปรดเลือกเพียง 3 ข้อและใส่หมายเลข 1-3 หน้าคำตอบโดย 1 หมายถึงสำคัญที่สุด)</u>

.....เฟสบุ๊ค   .....อีบุ๊คส์[*]   .....เว็บไซด์   .....โมบายแอพพลิเคชั่น[*]   .....อื่นๆ(โปรดระบุ).........

4. ระดับ<u>ความพึงพอใจ</u>ของท่านที่มีต่อช่องทางการสื่อสารและพัฒนาข้อมูลการท่องเที่ยวบ้านบางโรงในขณะนี้

(ทำเครื่องหมาย ✓ ในช่องที่ตรงกับความคิดของท่านมากที่สุด)

☐ มากที่สุด   ☐ มาก   ☐ ปานกลาง   ☐ ควรปรับปรุง   ☐ ไม่เคยใช้

......................................ขอขอบพระคุณที่ตอบแบบสอบถามค่ะ......................................

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[*] อีบุ๊คส์ คือ หนังสือหรือสิ่งพิมพ์ที่จัดทำข้อมูลในรูปแบบอิเล็กทรอนิกส์ซึ่งสามารถเผยแพร่ผ่านระบบเครือข่ายออนไลน์ หรือ ผ่านอุปกรณ์จัดเก็บบันทึก ข้อมูลคอมแพคดิสก์ โดยสามารถจัดทำให้มีการนำภาพเคลื่อนไหววีดีโอ เสียงหรือเกมส์ มาใช้ประกอบเนื้อหาได้ (คร.ไพศาล กาญจนวงศ์, 2553)

[*] โมบายแอพพลิเคชั่น คือ แอพพลิเคชั่นที่ช่วยการทำงานของผู้ใช้บนอุปกรณ์สื่อสารแบบพกพา (สุชาดา พลาชัยภิรมย์ศิล, 2554)

Appendix II - 3 Questionnaire for oversea visitors

Questionnaire for Visitors

Information and Knowledge Management System for Sustainable Community-Based Tourism;
Case Study Bang Rong Village, Phuket Province

Please accept our sincere thanks for taking the time to provide us with your valued inputs.

Part 1. General Information
Instruction: Please tick ☑ the option that is closest to you

1. Gender   ☐Male   ☐Female

2. Age   ☐≤ 15 years   ☐16 – 25 years   ☐25 – 35 years
              ☐36 – 45 years   ☐45 – 55 years   ☐ > 55 years

3. Religion   ☐Buddhist   ☐Muslim   ☐Christian   ☐Others (please specify)..............

4. Education ☐Lower than High School
              ☐High School or Equivalent
              ☐Diploma / Vocational Certificate
              ☐Bachelor's degree
              ☐Master degree or higher

5. Occupation ☐Company employee   ☐Government employee/State enterprises
              ☐Business owner   ☐Student

              ☐Others (please specify) ….................

6. Nationality (please specify).............................

7. Have you ever visited Bang Rong before?
              ☐Yes   ☐No
8. What is your main purpose to visit Bang Rong? (Please select ONE only)
              ☐Vacation / Sports / Recreation   ☐Conference / Seminar / Study
              ☐Business / Delegation   ☐Visit relatives or friends
              ☐Other(please specify)..............
9. Do you work or own a tourism business?
              ☐ Yes (please answer Question 10)   ☐No (please answer Part 2)

10. Your tourism business   ☐Transportation   ☐Food and Beverage   ☐Accommodation
                            ☐Tour operation   ☐Others (please specify).................

---Continue to page 2...

Part 2 Interview form about information for community-based tourism development

Instruction   Please tick ☑ in the option that is closest to the fact

1. Please rate the following information about Bang Rong tourism according to <u>the level of importance for visitors</u> to know before they enter the community

Level of importance	Most	Fair	Low	None
- History				
- Rules and regulations				
- Religious importance in the community				
- Self-management of the community				
- Safety				
- Accommodation				
- Transportation route and access				
- Cost of travel programs				
- Attractions and local products				
- Tourism information center and contact number				
- Others (please specify)..				

2. What are the activities that can develop Bang Rong tourism? [Please <u>select only 3</u> items by labeling <u>No.1 as most importance</u>, then 2, and 3 respectively]

Order	Activities	Order	Activities
	Training about tourism knowledge		Training in IT (Information Technology) skills
	Training about leadership		Training villagers in adaptation to external change
	Improving the community participation in development		Training about the language for tourism use
	Improving tourism marketing to be more international and up-to-date		Others (please specify)..

3. Which of these channels can best facilitate the exchange of Bang Rong tourism information of? [Please <u>select only 3</u> items by labeling <u>No.1 as most importance</u>, then 2, and 3 respectively]

.....Facebook   .....E-book*   .....Website   .....Mobile application*   ..... Others(pleasespecify).................

4. Please rate your satisfaction about the current information and marketing of Bang Rong tourism

☐Most   ☐Very much   ☐Average   ☐Need improvement   ☐Not at all / Never know

....Thank You Very Much for Your Time...

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*E-book is a text- and image-based publication in digital form produced on, published by, and readable on computers or other digital devices (The wall street journal, 2010).
*Mobile application is a type of application software designed to run on a mobile device, such as a smart phone or tablet computer (Janssen, 2012).
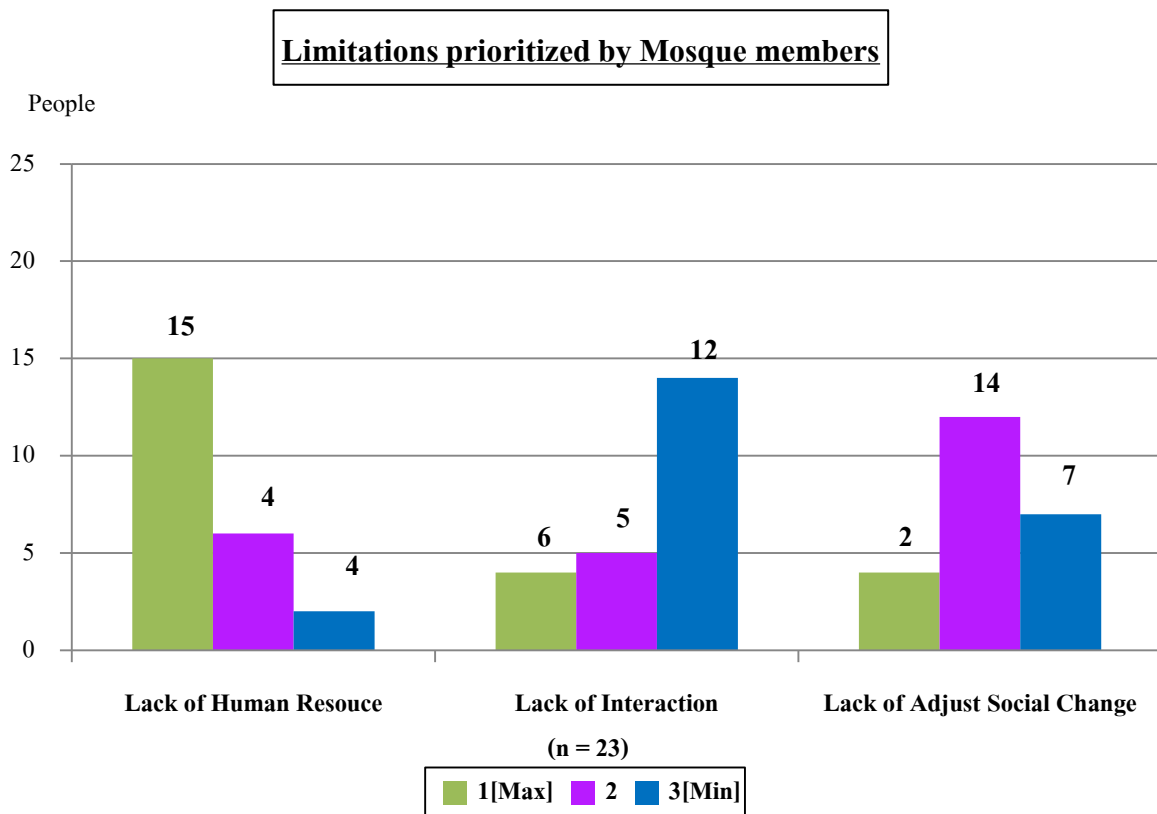
Appendix III

Data from qualitative and quantitative field survey

Figure III - 1 Word frequency of in-depth interviews by NVivo software

Figure III - 2 Word frequency of CBT literatures by NVivo software

Figure III - 3 Word frequency of Islamic tourism literatures by NVivo software
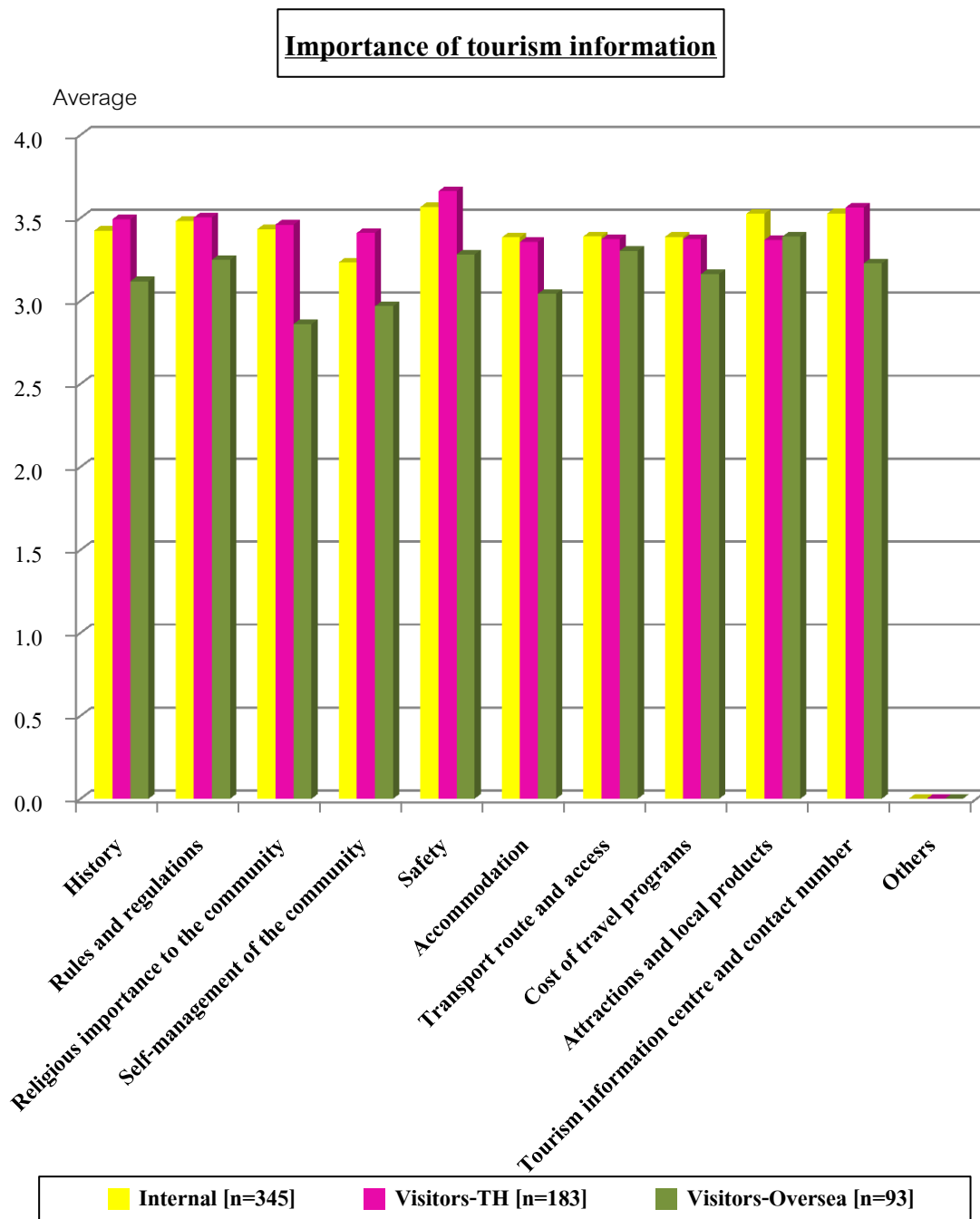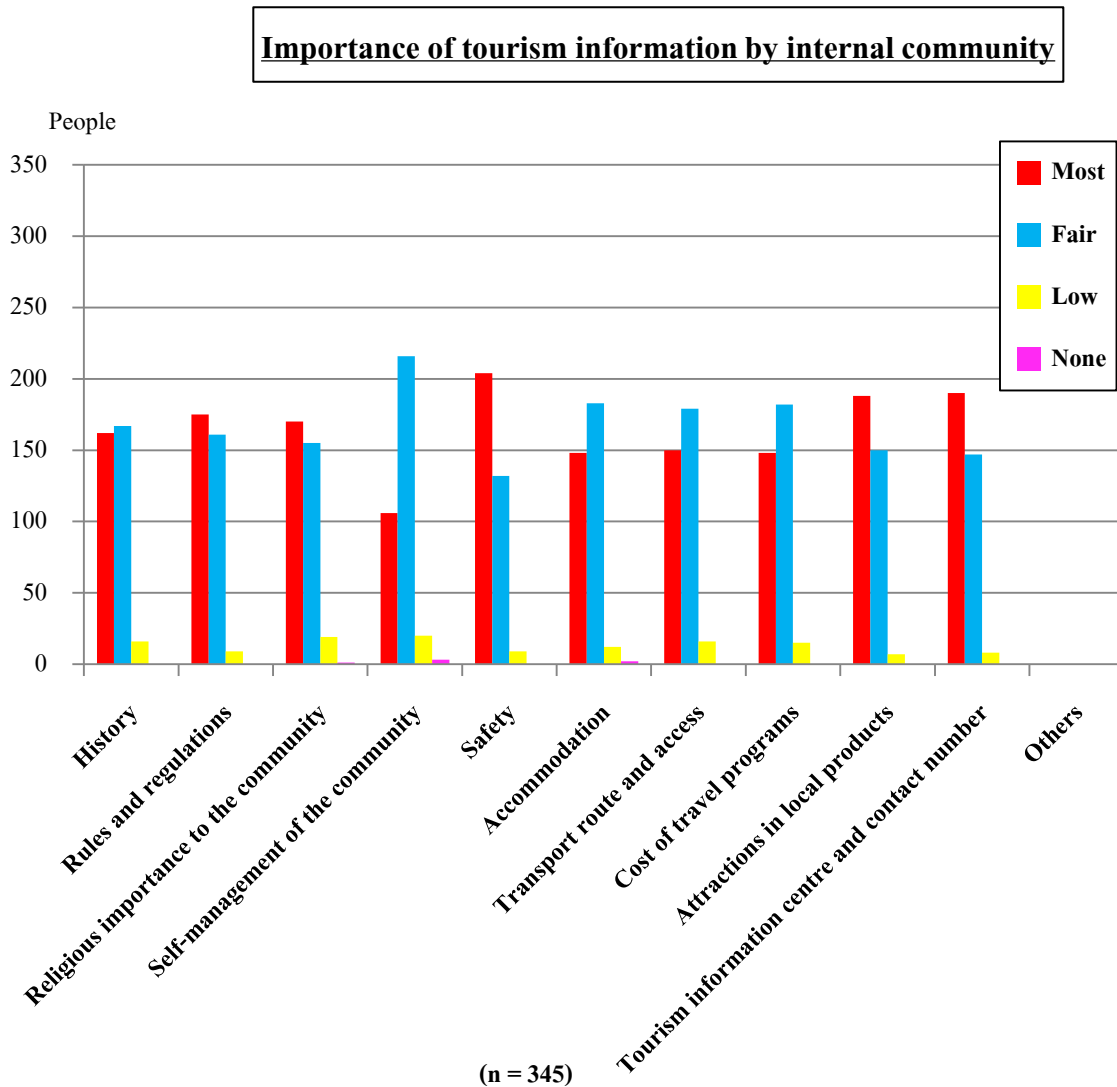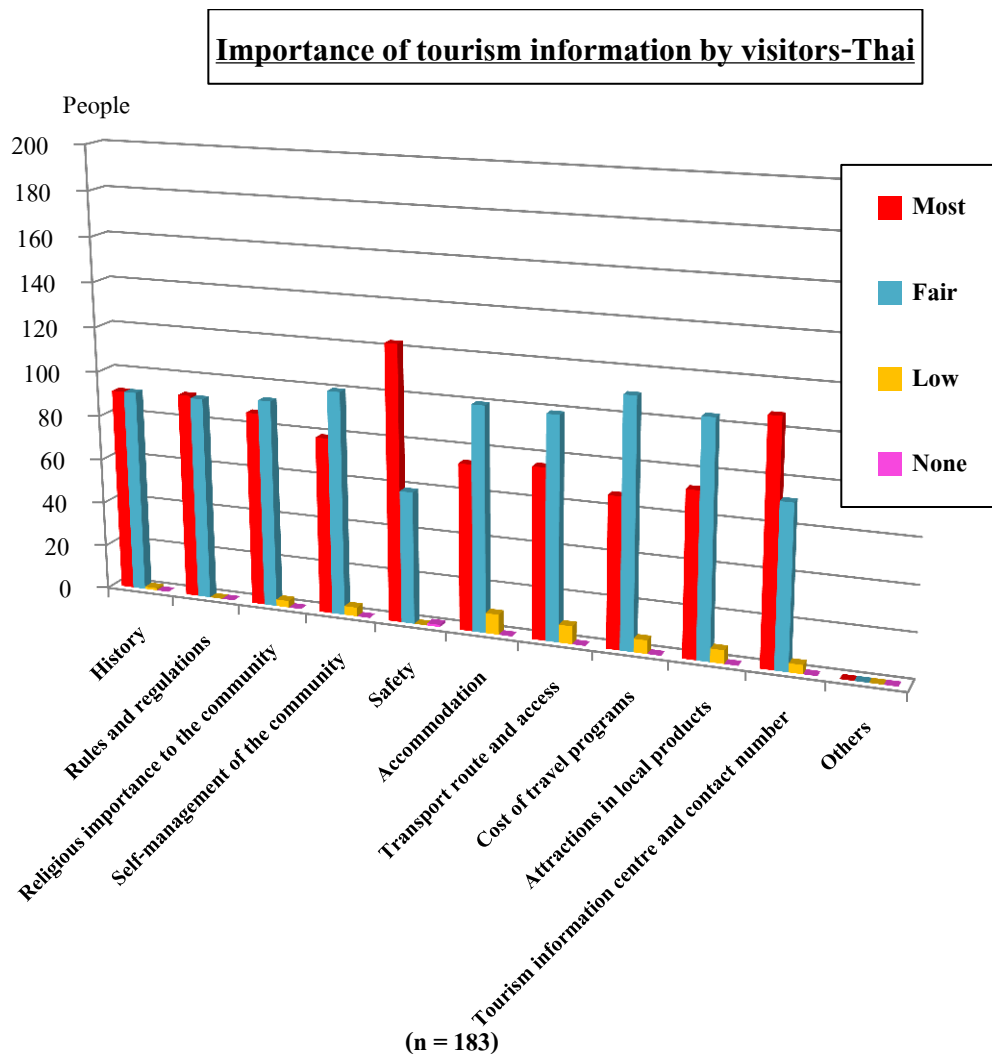

Figure III - 4 Key success factors prioritized by Mosque members

Figure III - 5 Limitations prioritized by Mosque members

Figure III - 6 Importance of tourism information
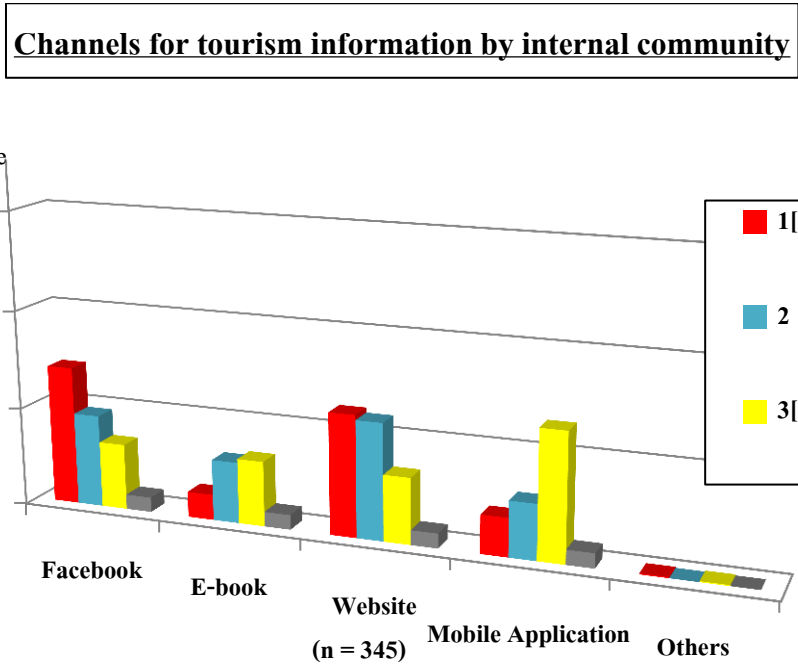
Importance of tourism information by internal community

People

(n = 345)

Figure III - 7 Importance of tourism information by internal community

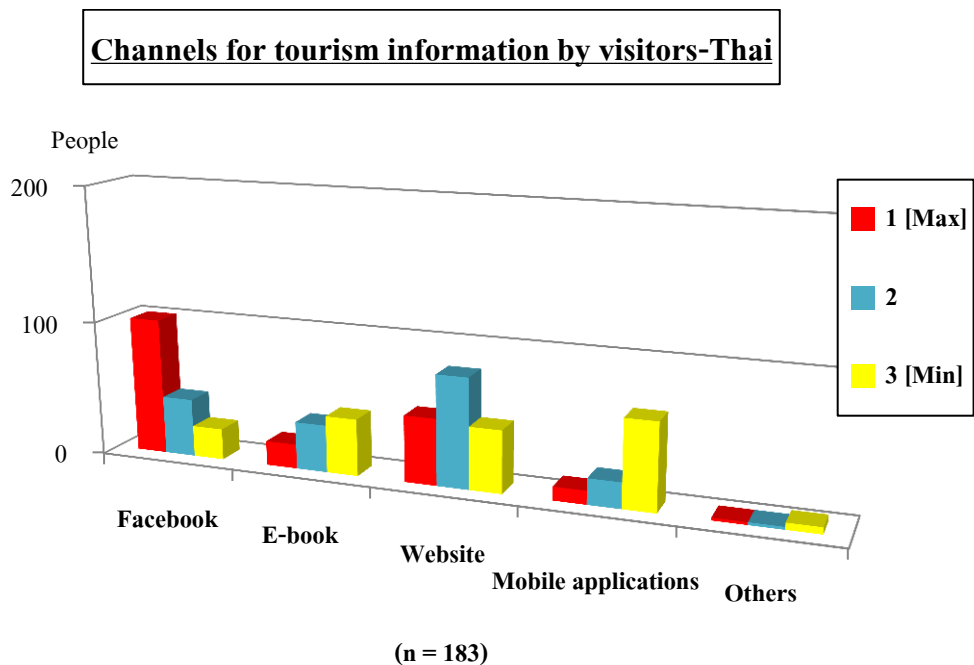**Figure III‑8** Importance of tourism information by visitors-Thai

Importance of tourism information by visitors-oversea

People
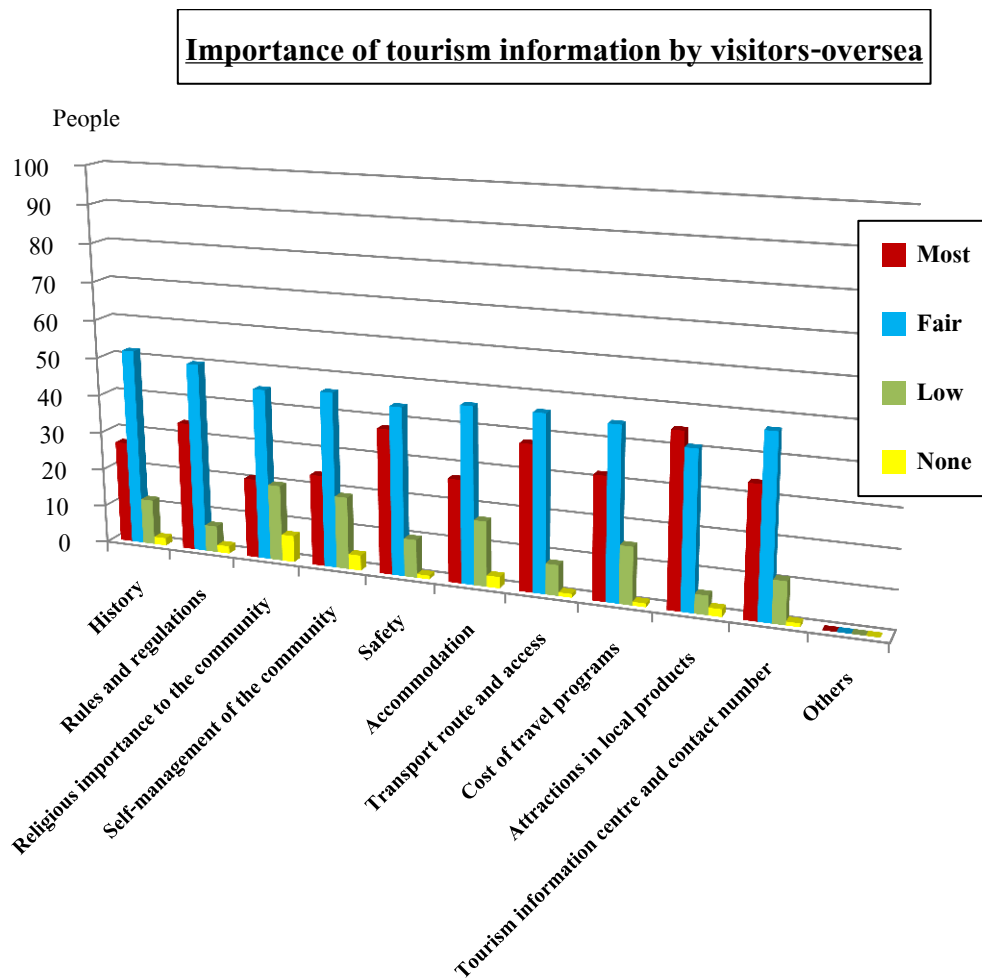
(n = 93)

Figure III - 9 Importance of tourism information by visitors-oversea
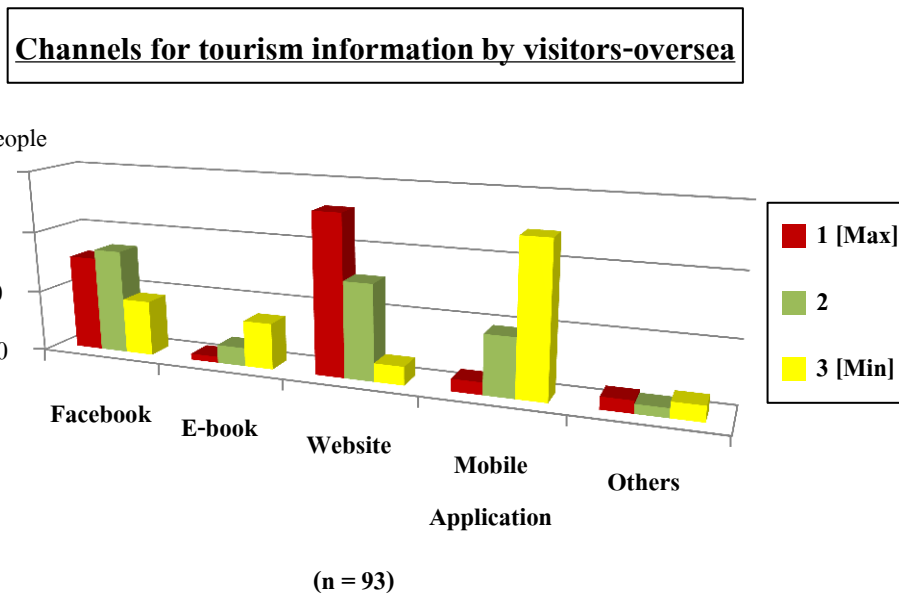
Channels for tourism information by internal community

People

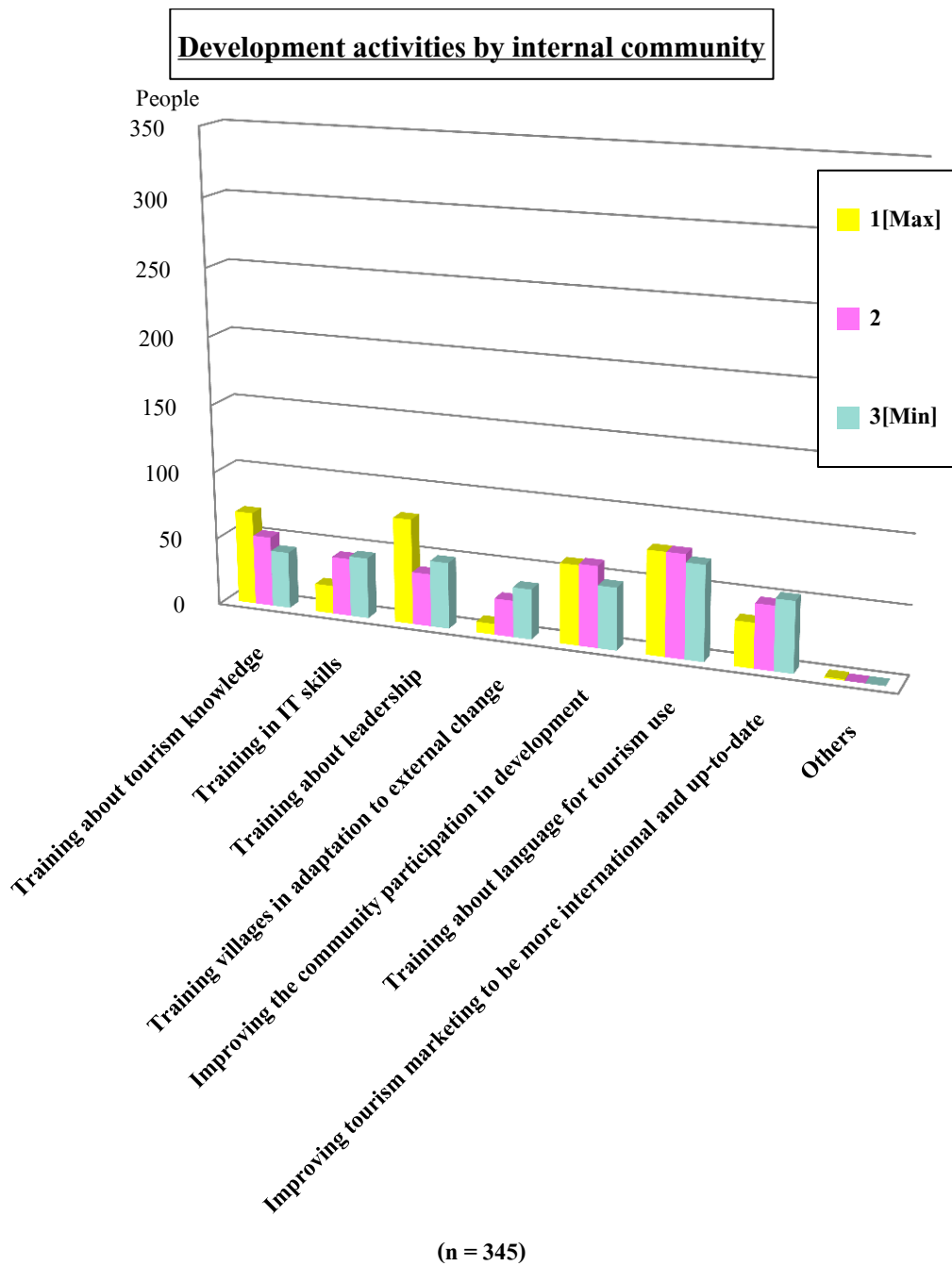**Figure III - 10** Channels for tourism information by internal community

Channels for tourism information by visitors-Thai

People

(n = 183)

Figure III - 11 Channels for tourism information by visitors-Thai

Channels for tourism information by visitors-oversea

People

60

40

20

0

Facebook   E-book

Website

Mobile

Application

Others

1 [Max]

2

3 [Min]

(n = 93)

Figure III - 12 Channels for tourism information by visitors-oversea

96

(n = 345)

Figure III - 13 Development activities by internal community
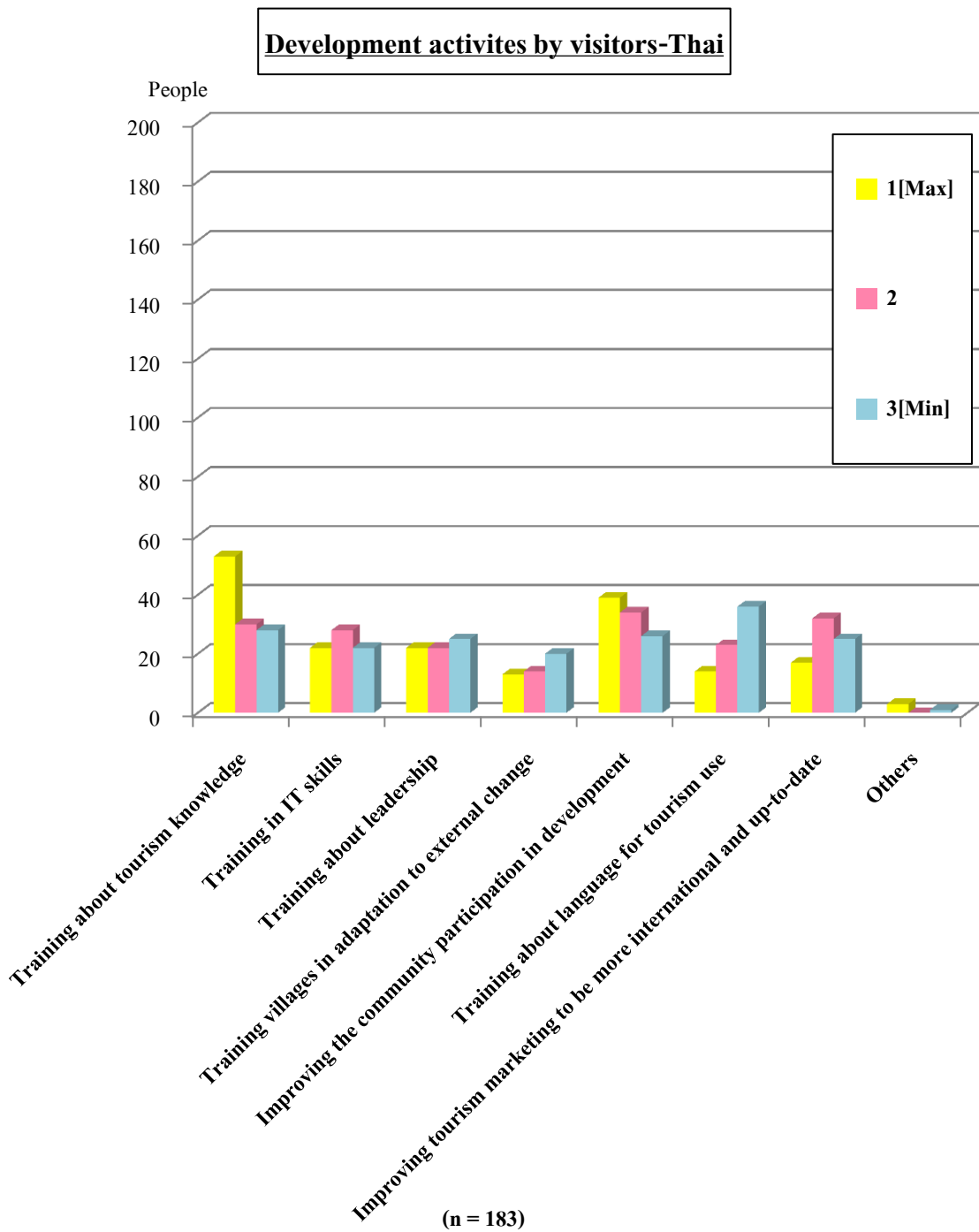
Figure III - 14 Development activities by visitors-Thai
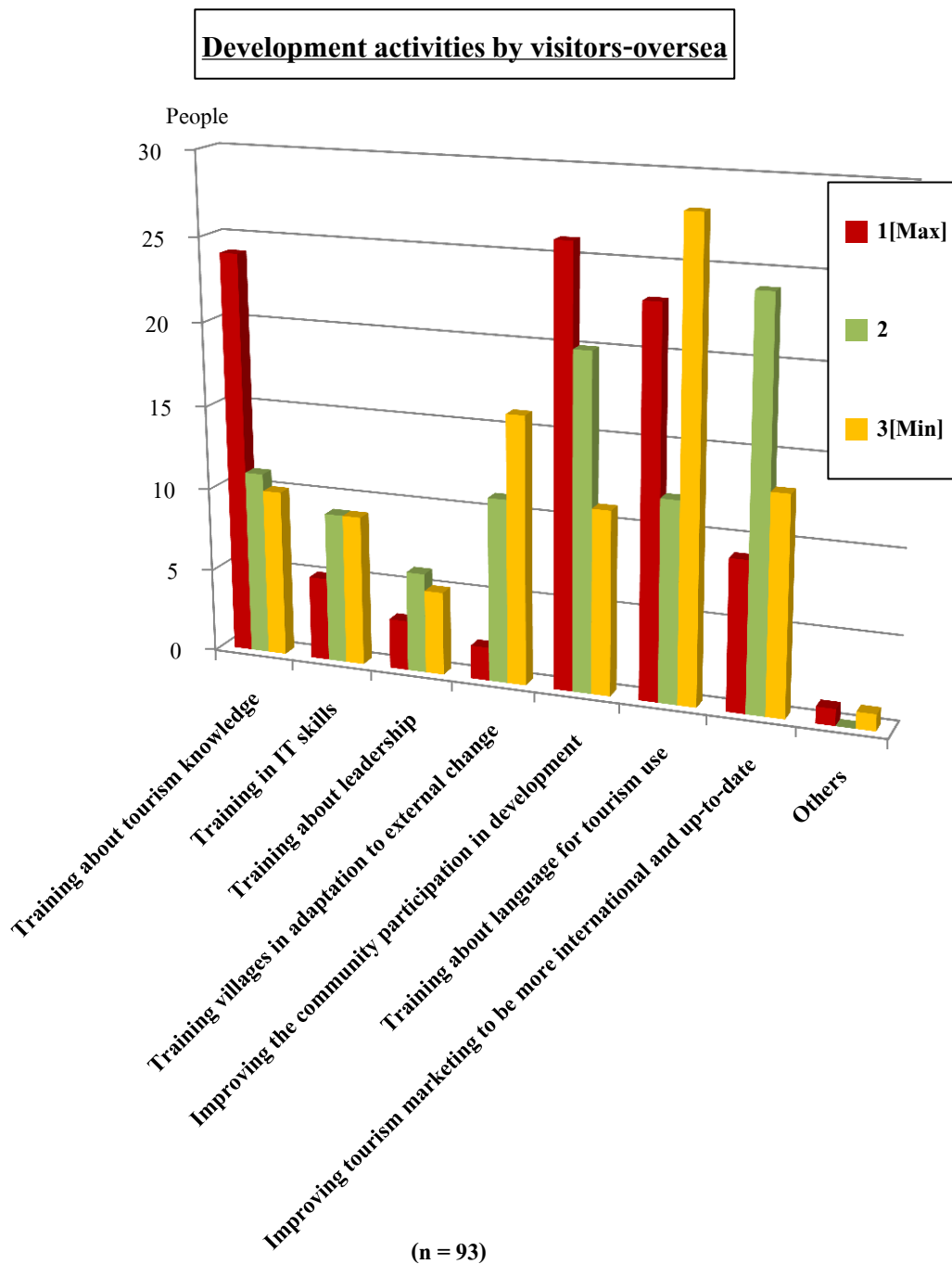
Figure III - 15 Development activities by visitors-oversea