

Supply Chain Design for Senior Tourists in the Lanna Region of Thailand

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Abstract— Tourism is considered an important sector of the world economy nowadays since this industry is a major source of income for many countries including Thailand. The senior tourist market is an interesting tourism market since the market tends to expand continually due to the world's senior population growth. Moreover, this elderly market is a potential market with high purchasing power and free time for travelling. Therefore, Thailand should prepare readiness to support this emerging market because it could be another major source of export income. The readiness of tourism management and provision of tourism facilities for senior tourists should be taken into consideration. This paper aims to study the supply chain design for senior tourist and mainly focus on the upper Northern area of Thailand (Lanna region) which has tourism resources and services required for senior tourists demand.

Keywords— *Tourism Supply Chain, Supply Chain Connectivity, Senior Tourist, Lanna Region, Thailand*

1. Introduction

Tourism is considered an important sector of the world economy nowadays since this industry is a major source of income for many countries including Thailand. To protect the market share or to maintain the position in the market is very considerable. Therefore, Thailand continually focuses on targeting new potential market in order to attract those tourists to the country, e.g. health tourism, medical tourism, spa and wellness tourism, disabled tourism, and especially senior tourism which has an increase in growth every year in many countries.

The senior tourist market (age more than 60) tends to increase significantly in the future because medicine and health development reduces the death rate. That means the elder will live longer than previous times. Those people tend to spend their lives after retirement doing recreational activities or travelling for relaxation since they have more leisure time and more saving money than other age groups. This elderly market would become an emerging tourism market with a lot of potentials and high purchasing power (International Institute for Trade and Development, 2014). The United Nation has predicted that the number of people who have the age more than 60 years old would build up to 1,968 million people by the year 2050. The UN also states that Asia will become a region with the most senior population. In Thailand, senior population is predicted to increase continuously. Since 2004, Thailand has become an aging society. The number of elder has risen from 6.8% in 1994 to 9.4% in 2002 and to 10.7% in 2007. The growth is forecast to continue to 15% by the year 2020 (National Statistical Office, Thailand 2007).

The upper Northern Thailand, or also known as the Lanna region of Thailand, has advantages of its beautiful landscape, comfortably cool weather, abundant natural resources, unique tradition and culture, ethnic diversity as well as long history story. Those factors make Lanna region attract tourists from all over the world including senior tourists who has a high demand for tourism location with invaluable culture and nature. However, even though there are a lot of advantages in the upper Northern area of Thailand in terms of tourism geography, there is still a weak point in management to support this tourism market. According to the study of slow tourism in Lanna region of Thailand for senior tourists (Social Research Institute, Chiang Mai University, 2012), the study found that although there are many types of tourist attraction in Northern region, namely

religious tourism, natural tourism or heritage tourism, there is no tourism management specially for senior tourists. There are still lacks of basic knowledge of management and service for elder people.

Therefore, this paper aims to study the supply chain design for senior tourists in the Lanna Region of Thailand, which has tourism resources and services required for senior tourists demand. To understand a connection of tourism supply chain for senior travellers is basically needed in order to efficiently deliver the service to them. The result of the study would help connect the tourism supply chain of each area in Northern Thailand and can be used to prepare readiness to support this senior tourists market in order to improve a capability of tourism industry in Thailand.

The area scope of this study is the upper Northern area of Thailand (8 provinces), namely Chiang Mai, Chiang Rai, Lamphun, Lampang, Mae Hong Son, Phrae, Nan, and Phayao province.

2. Conceptual Framework of Supply Chain Analysis for Senior Tourism

To analyze tourism supply chain for seniors in the Lanna region of Thailand has 3 steps: 1) to collect data, 2) to analyze by using SCAAN Model and 3) to propose a model/design of supply chain connectivity.

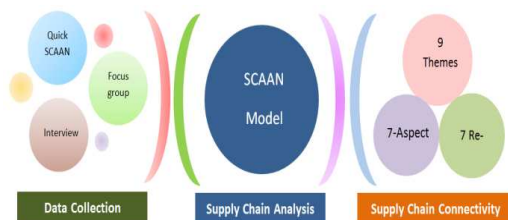


Figure 1. Conceptual framework of supply chain analysis for senior tourism

3. Methodology

The study starts with reviewing papers and methods regarding supply chain management, tourism supply chain, and a conceptual framework of tourism industry. The data will be collected by questionnaires, interviews and focus group. Moreover, the Quick SCAAN will be developed based on SCAAN© Model in order to investigate and create data base for the supply chain for senior tourism.

3.1 Sample

1. Senior tourists - both international and domestic who visit the upper Northern provinces of Thailand (8 provinces)
2. Entrepreneur - this sample group will be selected from each sector of tourism industry by using theoretical sampling in order to build credibility for research results. Therefore, there are 8 organizations selected: Care Centre Chiang Mai, McKean Institute, Homestay Doi Mae Salong, Wat Phumin, Jolie Femme, Standard Tour, Wiang Kum Kam, Khamthana Resort.

3.2 One-day SCAAN®

The researchers examine the operation of service providers in supply chain for senior tourism by SCAAN® Model using the efficient tool for data collection called *One-day SCAAN®*. The One-day SCAAN® is a framework for supply chain management assessment which aims to collect data efficiently and effectively. It is actually developed from Quick Scan Audit Methodology (QSAM). One-day SCAAN® consists of 4 types of data collection: 1) process mapping, 2) questionnaires, 3) interviews, and 4) archival documents (Piboonrungrroj, 2014). This tool has a systematic research process, starting with to determine a suitable pattern of supply chain, to propose how to assess the operation and create the case study as well as to diversely collect data. In this study, One-day SCAAN® is used in order to collect data efficiently, i.e. productive information and sufficient amount of samples to conclude the results of research.

3.3 The Connectivity of Supply Chain for Senior Tourist

To study the connectivity of supply chain for senior tourism aims to create data base structure following the tourism route *9themes and 7Re*. It is the objective of the project called *Club55 Project: 7R@Lanna* - Refresh, Retreat, Retain and Re-educate.

1. Recall
2. Refresh
3. Recreation
4. Recover
5. Retreat
6. Retain
7. Re-learn

4. Result

4.1 Supply Chain for Senior Tourism in the upper Northern Thailand

The researchers selected 8 service providers/supply chain members to study the connectivity of supply chain for preparing tourism products and services including marketing channels. The result can be concluded in table1.

Table 1. The tourism route for senior tourists in the upper Northern region (Lanna)

	Organization	Province	Type	Tourist Attraction	Accommodation	Guide Tour	Food	Medical care	souvenir
1	Firm A	Chiang Mai	Resort, Accommodation		x	x	x		
2	Firm B	Chiang Mai	Medical Centre	x	x	x	x	x	x
3	Firm C	Chiang Rai	Homestay		x	x	x		
4	Firm D	Nan	Community	x	x	x	x		x
5	Firm E	Chiang Mai	Souvenir						x
6	Firm F	Chiang Mai	Guide Tour			x			
7	Firm G	Chiang Mai	Tourist Attraction			x	x		x
8	Firm H	Chiang Rai	Accommodation		x		x		

According to the study of each service provider, the model of the connectivity of supply chain for senior tourists is designed as follows in figure2.

Figure 2. A generic supply chain of the senior tourists

Source: adjusted from Piboonrungrroj and Disney (2009)

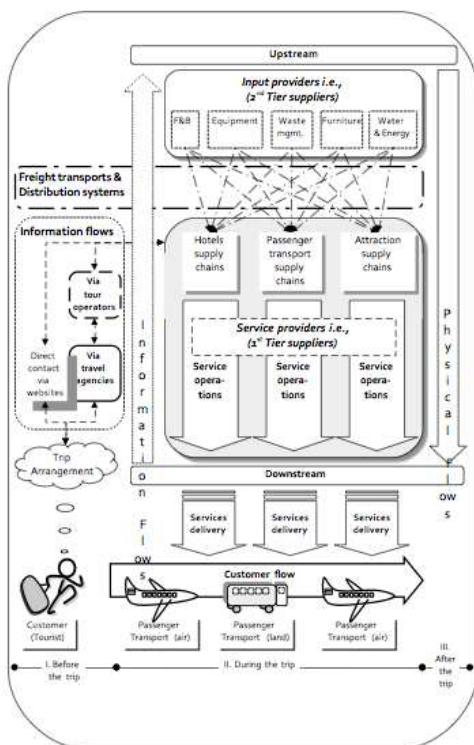
4.2 Tourism Supply Chain Connectivity

4.2.1 Information Connectivity

The connection starts with data management regarding senior tourism. According to the study using SCAAN® Model, it was found that a major data source, which is the beginning of how people access tourism information, comes from magazines for seniors. Findings from interviews indicated that elderly people mostly know tourist attractions and tourism activities from magazines which specially target them. Obviously, those magazines are very popular in aging people, especially in foreign countries. The list of well-known foreign senior magazines is shown in table2.

Table 2. List of foreign senior magazines

	Magazine	Description
1	AARP The Magazine	Magazine for people 50 and over. Editorial topics include money and



		finance, work and retirement, health and fitness, travel, and essays.
2	AgeVenture	News reports on longevity health research and retirement lifestyle trends.
3	Best Places In The World To Retire	Credible on-line information about retiring overseas.
4	Carepoint	Daily senior living news, free retirement home directory, information and resources, for and about seniors in the USA.
5	Celebration	Publication that provides seniors in the Dallas (U.S.) area with fun information, senior events, travel and educational programs.
Magazine		Description
6	The Oldie	The aim was to produce an antidote to youth culture but, more importantly, a magazine with emphasis on good writing, humour and quality illustration.

Source: <http://www.world-newspapers.com/seniors.html>

Table 3 shows the most popular magazines for senior citizens in Thailand.

Table 3. List of Thai senior magazines

	Magazine	Description
1	Moh Chao Ban	Mainly focus on medicine and health.
2	Reader’s Digest (Thai version)	Variety of general topics
3	Art&Culture Magazine	Provides information about art, culture and life styles.
4	Korkon	Interesting ways of living.
5	Cheewajit	Beneficial healthcare information.
6	Sakulthai	News, general information and knowledge Specially target seniors who have a problem with visual capability.
7	Young@heart	Modern style magazine, open for elderly members who always have youthful heart.
8	Tua Yai	Specially target seniors who have a problem with visual capability.

The study found that the magazine for elderly people plays important role in “Information Flow” in supply chain for senior tourists. However, there are still insufficient senior magazines in Thailand. It is also found that most information rather flows by word of mouth or internet searching.

4.2.2 Interest Connectivity

After studying the tourism supply chain for seniors in the upper Northern area of Thailand, it was also found that the connectivity of the supply chain could be created according to tourist’s interest.

Therefore, 9 types of tourism are developed, as follows:

1. Agricultural tourism
2. Historical tourism
3. Religion-based tourism
4. Health tourism
5. Adventure tourism
6. Natural-based tourism
7. Sport tourism
8. Learning-based tourism
9. Cultural tourism

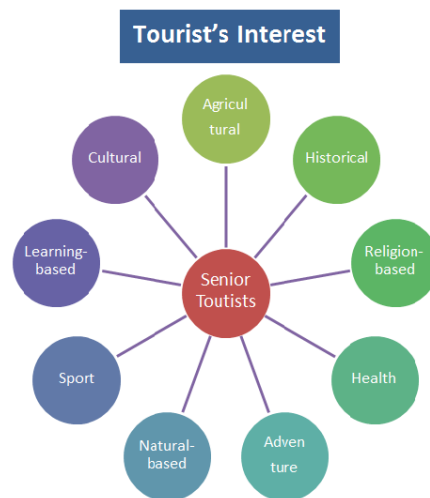


Figure 3. The connectivity of tourism supply chain according to tourist’s interest

Therefore, the tourism supply chain connectivity for seniors according to their interests (9 themes, 7Re and Club 55) in Lanna region can be concluded in table4 (See Appendix A)

4.2.3 Operational Assessment of Supply Chain for Senior Tourism

In order to create connectivity of supply chain for senior tourists, there should be a model for evaluating the operation in order to support the development correctly. However, to assess the supply chain is very detailed and complex (Minzter, 2000; Piboonrunroj, 2013). Hence, in order to conveniently apply the assessment model to community, the researcher has developed a design to assess the supply chain for senior tourists in 7 aspects: 1) beauty, 2) cleanness, 3) convenience, 4) calmness, 5) enjoyment, 6)

comfort, and 7) happiness. There is a definition for each of 7 aspects, shown in table 5 (See Appendix A). This supply chain management for senior tourism (7 aspects assessment) can be used by rating the importance of each aspect and evaluating by research team, using the Likert 1-10, Likert 1-7 or Likert 1-5 method depending upon a convenience of users or assessors of supply chain.

4.2.4 *The Connectivity of Supply Chain for Senior Tourist in the Lanna Region following Club55 Project*

To study the connectivity of supply chain for senior tourism aims to create data base structure following the tourism route *9themes and 7Re*. It is the objective of the project called *Club55 Project: 7R@Lanna* - Refresh, Retreat, Retain and Re-

educate. Therefore, 7Re can be classified as follows:

1. Recall - to recall the old days
2. Refresh - to freshen your life
3. Recreation - to relax and release
4. Recover - to recover health
5. Retreat - to stay with comfort
6. Retain - to support conservation
7. Re-learn - to explore new things

4.2.5 *The integration of 7-Aspect Assessment and 7Re Theme*

The researcher has created 7x7 Matrix to be a framework to develop the tourism supply chain connectivity shown in table6. This framework is designed based on the idea of integration of tourism theme and tourism operational assessment.

Table 6. The 7x7 tourism supply chain matrix (7Re x 7-Aspect)

	Beauty	Cleanness	Convenience	Calmness	Comfort	Enjoyment	Happiness
Recall	★★★★	☆☆☆	☆☆☆	☆☆☆	☆☆☆	★★★★	⊕⊕⊕⊕⊕
Refresh	☆☆☆	☆☆☆	☆☆☆	☆☆☆	⊕⊕⊕⊕⊕	★★★★	⊕⊕⊕⊕⊕
Recreation	★★★★	★★★	★★★	★★★	⊕⊕⊕⊕⊕	☆☆☆	★★★★
Recover	☆☆☆	⊕⊕⊕⊕⊕	⊕⊕⊕⊕⊕	⊕⊕⊕⊕⊕	☆☆☆	☆☆☆	★★★★
Retreat	☆☆☆	★★★★	★★★★	★★★★	★★★★	☆☆☆	⊕⊕⊕⊕⊕
Retain	⊕⊕⊕⊕⊕	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	⊕⊕⊕⊕⊕
Re-learn	☆☆☆	☆☆☆	★★★★	☆☆☆	☆☆☆	⊕⊕⊕⊕⊕	☆☆☆

Note: ☆☆☆ Good ★★★★★ Very good ⊕⊕⊕⊕⊕ Excellent

According to table6, each theme (7Re) would have a different level/rating of importance in each aspect. For example, Recall theme considers Happiness as the most important aspect, following by Beauty one while Re-learn theme considers Enjoyment as the most important aspect. This matrix can be useful for tourism entrepreneurs or policy planners who would like to plan development. However, the importance level in this 7x7 matrix can be adjusted if there is a change in any factor involved.

4.2.6 *Value Added Analysis in Supply Chain for Senior Tourists in the Lanna Region*

The value added in tourism supply chain can be measured by the values that each member of the chain additionally creates. Those values might come from product processing or transfer. Regarding tourism industry, the value can be created by customers' satisfaction from good service. Therefore, the value added can be analyzed by comparing the increased prize of tourism products when members enter to play a role in supply chain. This paper studies a component of tourism products that suit senior tourists. Types of tourism and types of member are classified. The data is collected by interviews. The proportion of value added that each member receives from different types of tourism can be concluded in table7.

Table7: The proportion of value added in supply chain

	Types of Tourism	Value of Tourism Product	Tourist Attraction	Accommodation	Guide Tour	Food	Medical Care	Souvenir
1	Agricultural tourism	★★	★★★★	★★★	★★	★★★	★	★★★
2	Historical tourism	★★	★★★★★	★★	★★★	★★	★	★★★
	Types of Tourism	Value of Tourism Product	Tourist Attraction	Accommodation	Guide Tour	Food	Medical Care	Souvenir
3	Religion-based tourism	★★★★	★★	★★★★	★★	★★★★	★★★	★
4	Health tourism	★★★★★	★★★	★★★★★	★★★	★★★★	★★★★★	★★
5	Adventure tourism	★★★	★★★	★★	★★★★★	★★	★★	★★
6	Natural-based tourism	★★	★★★★★	★★★	★★★★★	★★	★	★★
7	Sport tourism	★★★★	★★★★★	★★	★	★★	★★	★★
8	Learning-based tourism	★★★★	★★	★★★	★★★	★★	★	★★★★★
9	Cultural tourism	★★★	★★★★	★★★	★★★★★	★★★	★	★★★★

Source: Analysed from data in SCAAN® Model

Note: ★ represents the value of value added

5. Conclusion and Recommendation

The study of the supply chain design for senior tourists in the Lanna region of Thailand can be concluded as follows:

5.1 Information Connectivity

The major data source, which is the starting point of searching for tourism information, is a magazine for seniors. According to the interviews, it was found that elderly people mostly get information about tourist attractions and tourism activities from magazines which specially target them. Those magazines are very popular in aging people, especially in foreign countries. Therefore, the magazine for elderly people plays important role in "Information Flow" in supply chain for senior tourists. However, there are still insufficient senior magazines in Thailand since most information rather flows by word of mouth or internet searching.

5.2 Interest Connectivity

After studying the tourism supply chain for seniors in the upper Northern area of Thailand, it was found that the connectivity of the supply chain could be created according to tourist's interest. Hence, 9 types of tourism are developed, namely agricultural tourism, historical tourism, religion-based tourism, health tourism, adventure tourism, natural-based tourism, sport tourism, learning-based tourism and cultural tourism. Moreover, these tourism types can be connected with tourism route to show the connectivity of the supply chain for senior tourists (more detail is shown in table4, Appendix A).

5.3 Operational Assessment of Supply Chain for Senior Tourism (7 aspects)

In order to create connectivity of supply chain for senior tourists, there should be a model for

evaluating the operation in order to support the development correctly. Therefore, the researcher has developed a design to assess the supply chain for senior tourists in 7 aspects in order to conveniently apply it to community. Those 7 aspects consist of 1) beauty, 2) cleanness, 3) convenience, 4) calmness, 5) enjoyment, 6) comfort, and 7) happiness.

This supply chain management for senior tourism (7 aspects assessment) can be used by rating the importance of each aspect and evaluating by research team, using the Likert 1-10, Likert 1-7 or Likert 1-5 method depending upon a convenience of users or assessors of supply chain.

5.4 Recommendation

There should be a meeting conference, seminar or training for giving information/knowledge about senior tourist market trend, tourism supply chain for seniors, planning for tourist attraction development, and service provision for supporting elderly people. Since people tend to be interested in senior tourism but there is still lack of information. Furthermore, senior tourism management handbook should be created and published to organization or entrepreneurs involved in the industry so that they could have a road map of how to manage this market. The researcher also recommends to further study senior tourism in other aspects, such as health tourism.

6. References

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Appendix A

Table 4. Interest connectivity of supply chain for senior tourists in the upper Northern area (Lanna)

	Interest	Tourism route (Example)	Area (Example)	Tourist Attractions/ Activities		
1	Agricultural tourism	Chilling @ Lanna: Chom, Chim, Shop (to visit, to taste and to shop)	Chiang Mai Chiang Rai	Strawberry farm	Tea tasting for health	Royal project
2	Historical tourism	To study Lanna history and traditional architecture	Chiang Mai Lamphun Nan Lampang	Trailing (religious) expert	A route march of King Naresuan	Wander on the path of Lanna civilization
3	Religion-based tourism	Relax and release in Lanna style	Chiang Mai Chiang Rai Nan	Meditation	Visit 9 auspicious temples	Wat Khao, Ban Dam, Chern Tawan Farm
4	Health tourism	Enjoy travelling with good health at Lanna	Chiang Mai Chiang Rai Phrae	Massage	Spa	Yoga
5	Adventure tourism	Go adventure at Lanna	Chiang Mai Chiang Rai Phrae	Hiking	Travel through a forest	Biking
6	Natural-based tourism	Have fun with Lanna natural trip	Chiang Mai Chiang Rai Phrae	Bird watching	Visit orchid farm	Botanic garden
7	Sport tourism	Joy and fun with Lanna sport trip	Chiang Mai Chiang Rai Phrae	Golf	Fon Jeung (Lanna dancing) Karaoke	Dancing Chinese dancing
8	Learning-based tourism	Explore new world in Lanna style	Chiang Mai Chiang Rai Nan Lampang	Lanna recipe	Creativity	Lanna art
9	Cultural tourism	Travel with Thai Lanna	Chiang Mai Nan	Souvenir	Performance	Community

Table 5. Definition of 7 aspects used for tourism supply chain assessment

	Aspect	Definition
1	Beauty	The tourist attractions, accommodations as well as scenery are beautifully attractive.
2	Cleanness	Cleanness for tourism is an important service for senior tourists. This includes cleanness of equipment used for preparing tourism products or services, as well as cleanness of service providers.
3	Convenience	To conveniently access tourist attractions and tourism services, to easily travel.
4	Calmness	To mainly focus on rest and reduce disturbances, e.g. noise, odor, bad views
5	Enjoyment	Entertaining recreational activities, satisfy tourists
6	Comfort	The provision of travelling facilities, travelling environments
7	Happiness	Overall impression, each activity in whole trip