# **CHAPTER 1**

# Introduction

#### 1.1. Background and statement of the problem

#### 1) Significance of the problem

The technology structures influencing travel e-commerce were introduced and referred to as Computerized Reservation Systems (CRS). Such systems were the predecessors of today's Global Distribution Systems (GDS). These traditional electronic intermediaries (eMediaries), particularly GDSs, progressively consolidated their position to four major systems, namely, SABRE, AMADEUS, GALILEO and WORLDSPAN (French, 1998; Copeland, 1991; Archdale, 1996; Sheldon, 1997; WTO, 1995). This eCommerce traveling changes the structure of an industry and in the process creates new business opportunities (Buhalis, 1998). It is also called eTourism in a few years after.

The tourism product is usually in the form of intangible nature, therefore, communication and advertising are very important. Making the brand well-known is also included. It might be by making through the old customer who has already known the brand to other new customer. The tourists nowadays are more professional and demanding for the higher quality products. "New tourists" have the better information about the destination and the organization. They started finding other values besides time and money (Buhalis, 2003). The value of time is more meaningful because of the limited time of people who have less time on the holiday and less time to plan for vacation.

UNWTO pointed out that ICTs are a powerful tool if used properly. They also bring many supports and motivate the management of the tourism industry. The travel industry has widely used ICTs; such as, the preparation of specific individuals, the management and internal management, and the marketing for the organizations around the world. When the online marketing is expanded, the number of tourist using internet to plan their traveling will be increased too. Most tourists find the map and route from the internet. They also find the planed ticket, the flight schedule, the residence and the interesting activities to do at the destination. The changing of tourist behavior is the beginning of electronic tourism or eTourism.

eTourism is the processing technology and value chain in the tourism business, travel, residence, food and facilities management. The basic tourism infrastructure will enable the organization the highest efficiency (Buhalis, 2003). This causes the changing in the business processing and the value chain. The strategies made the relationship management to all participants in the tourism industry and having the effect to every business in tourism industry.

The tourism industry in Chiang Mai, Thailand, has grown rapidly. Many companies have started to offer online reservations by themselves and online travel agencies in order to take advantage from the internet as a new distribution channel. The main factor that drives them to expand their online business is due to explosive increasing of online travel reservations being made by customers and suppliers.

Tourism is an information-based business. Tourists have to leave their environment to make use of the products. In decision making, the products are first abstract since there is only information from televisions, brochures, word-of-mouth, or websites available. Tourism products need information from both customers and suppliers. Thus makes information search cost high. This information imperfection in the market establishes long information and value chains. (Werthner and Ricci,2004).

The Travel Agency acts as a traditional and a flight reservation, including trains, buses and tourist accommodation houses that are selling the service directly. Tour operator or travel supplier, instead of multiple participants, are paid a commission and shall be responsible for the product, and retailers. Next is about the format of travel agency which adapted with the period of time called Online Travel Agency (OTAs), which will provide reservation services, selling tourism products and services through the general internet user, and being a transaction broker to the website.

The services of OTAs must be delivered via the web service or designed software for support and exchanged the information between computers via network. The language used to communicate between computers is the Extensible Markup Language (XML) XML is a standard by W3C (World Wide Web Consortium) announced that as of the XML in the form of text files to Unicode and can be a model in which to present complex information in the form of text that can be easily read in the XML has become the standard for determining the content and format of the electronic document. It has been developed to allow information sharing between agencies, applications and devices over the Internet, too.

OTAs that act as a wholesaler who coordinated with other services such as accommodation and travel to help until the last consumer through online system as intermediaries in the supply chain management, tourism (Tourism supply chain). Moreover, Online travel agency includes business via the internet and sometimes the phone consulting. A famous online travel agency is Travelocity Expedite and Orbits. For Thailand are Sawasdee and Siampanorama. For province level is Chiangmaibooking. Highlights of such an online agency is being able to sell to various places around the world, not limited in the community or any one of the sources. This type of OTAs in Chiang Mai can be divided into Specialized Agencies and Home-Based Agencies. However, OTAs deficit in collaborative planning and forecasting with their suppliers(Li,2007) and adversarial relationships Sinclair and Stabler,1997) are the norm in tourism industry.

Zhang et al. (2009) gives the definition of the tourism supply chain that the network tourism organization which participants in creating tourism activities and products and delivers the services to tourists.

Yilmaz and Bititci (2006) study to evaluate the efficiency of travel by using a value chain (Value chain model) by the technical analysis, value chain (Value Chain Analysis) and supply chain model (SCOR Model) to apply the supply chain of tourism to describe the operating characteristic of supply chain management and present all the activities of supply chain business. The result showed that the value chain of tourism included 5 main activities as follow;

 The decision to buy the best customer service (Win order) over a decision to form a package through a travel agent, tour operator or plan to travel by themselves, visitors will use the Internet to access information and planning. In addition, they maybe booking OTAs by themselves.

- Prior to delivery of support services (Pre-delivery support) such as a travel agent will be in operation to buy a travel package, purchased through the OTAs will be conducted entirely.
- The service delivery (Delivery) is a step that has been a travel service. The delivery of this service, including service providers, transportation, hotel accommodations and travel time.
- The support delivery of services (Post-delivery support) is to take place to assess customer satisfaction.
- Planning activities is the main activity that occurs in all stages of activity. Tourists must have a plan and decision all the time. The OTAs are able to provide information to travelers through their online system effectively. It will help make planning more efficient, too.

Moreover, the travel industry with the introduction of the principles used to describe the operation management processes, management structures and work in services such as hotel, restaurant, spa. It's also about the responsibility to ensure that the business is performing in terms of resource management to benefit and effective in terms of meeting the needs of consumers, operation management. OTAs can be done for a variety of formats such as Education management organizations, distribution channel management, human resources management and including supplier selection, etc.

In knowledge-based economy, Supply Chain plays an increasingly important strategic role for organizations that attempt to keep rapidity in market changes. Supplier Relationship Management (SRM) (Lambert and Cooper,2000) is a significant formation through supply chain integration. It has become a valuable way of securing competitive advantages and improving an organization's performances. SRM is a comprehensive approach to managing an enterprise's interactions with the organizations that supply the goods and services it uses. The goal of SRM is to improve the profitability of both focused firms and suppliers. The concept of SRM is not only applied in manufacturing sectors, but also in service sectors, such as tourism. Since tourism is the majority of service businesses in the world, this industry, therefore, has considerably evolved and modernized. High competition in the industry always forces tourism companies to enhance their competitiveness advantage. The recent emphasis on Supplier Relationship Management - inter-organizational concept and strategic sourcing is significant for

enhancing a company's performances. Strategic sourcing is to identify, evaluate, and select suppliers for long-term relationships that furnish buyers with strategic products and services to sustain competitiveness. Strategic sourcing establishes long-term relationships with suppliers and enhances organizational performances. Therefore, assessing the ability of suppliers to select the most appropriate suppliers is very important. Supplier selection is subjected to challenge to management because of it is difficult and complex problem. Suppliers selection has factors or criteria when considered, for example, quality of product and service, lead time, a unit pricing, flexibility in delivery, frequency, consignments on time, ability to share information, ability to collaborate in the design, the import tax/exchange rate of the currency and the stability of business of the supplier.

Strategic sourcing decisions are not only based on operational metrics (such as cost, quality and delivery) but also incorporate strategic dimensions and capabilities of suppliers quality management, process capabilities, management practices, design and development, and cost reduction in decision making. However, existing approaches supporting supplier selection in tourism industry neglect these interdependencies. The shortcomings of current approaches motivate the research to propose the decision-making approach for strategic supplier selection based on the principles of OTAs business process ,supplier selection and supplier relationship management of systems thinking .

Systems thinking is known as the methodology of soft operation research. The escalating of systems thinking as an idea supply, producing a convergence of development among culture and numerous scientific fields including business, engineering, physics, military science, agriculture, weather forecasting and public health(Sinclair and Stabler,1997; Zhang ,2009)Systems thinking are able to influence many of the existing concepts, theories and knowledge in each of these fields.(Yilmaz and Bitici,2006).To improve supplier selection process, it will be necessary to gain an understanding of the complex systems involved in both causing and solving supplier selection problems. The remainder of this chapter is organized as follows. In the next section, providing the justification of this study to explain why this case is important for this research.

#### 2) **Problem statement**

The research has concentrated on business operations within physical domain of tourism suppliers and OTAs organization, The research also studies in the global domain of information technology infrastructures (Figure 1.1) with specific reference to Chiang Mai tourism industry.

Due to shortened tourism product life cycles in Chiang Mai, the search for new suppliers is a continuous priority to OTAs in order to upgrade the variety and category of their product range. In contrast, Chiang Mai OTAs didn't have tools and strategic choice for supplier selection process. Therefore, so as to make a right choice, the supplier selection process should start with exposing what OTAs want to achieve by selecting suppliers. The problem justification are described as follow;

- a) Total number of suppliers that are served by OTAs are very large. In case, local OTAs have ordinary plan for sourcing ,but they will lose lose opportunity to chose the suppliers which match to their customer need.
- b) Lack of suitable method paid to supplier selection and long-term relationship management leads to: decreasing supplier service quality, animosity in supplier relationship and income diminishing
- c) OTAs in Chiang Mai have price-based competition and medium-end product mix marketing strategies. Consequently, they chose medium-end local hotels and medium-end car rent to serve low to mid-range travelers (Price-sensitive traveler) needs. This strategies lead local OTAs in Chiang Mai to have small margin per unit sale whereas, international OTAs and famous domestic OTAs have privilege to chose qualified suppliers and gain more profit than local OTAs in Chiang Mai.

By the way, The main stream of using information technology is in every cycle of businesses. Therefore, eCommerce has become something that modern businesses agree to adapt themselves into. In the history of world-class OTA businesses, there are developments in distributing online products and services since 1980s, which have developed stronger information technology usage than travel agencies in Thailand and in Chiang Mai that have only had used online reservation services in the past decade.

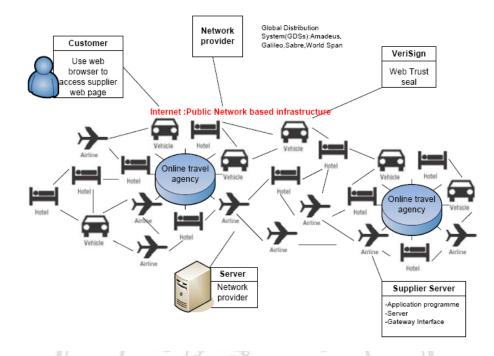


Figure 1.1 The global domain of information technology infrastructures in eTourism

Moreover, governmental supports for online transactions in tourism industry are enough they grant businesses websites, but are not enough to become national plans to push local OTAS forward to have reservation systems in the same level as those of foreign countries'. However, local OTAs still have market shares and right methods to survive world-class OTAs by establishing good relationships with suppliers and cooperate in elevating service levels by helping suppliers distribute products and services along with informing customers' needs to suppliers, unlike world-class OTAs who are not able to reach and understand the definition of local tourism. The contents OTAs present to customers are, therefore, in-depth information, including customer care call center. This point strengthens OTAs and helps them survive.

### **1.2 Purposes of the study**

To develop a model for supplier selection decision analysis and strategic choice by using systems thinking

### **1.3 Research question**

To achieve the research objective, the following research question was answered in this thesis is "What is the new perspective or model that integrate OTAs knowledge and can be applied in generalization of supplier selection process?" Under the said research question, there are related study topics as the following:

- the process of supplier selection and supplier relationship management
- the problem behavior of OTA's supplier selection and supplier relationship management
- the suitable systems thinking model for OTA's supplier selection and supplier relationship management
- the management strategy for OTA's supplier selection and supplier relationship management

# **1.4 Definition**

1) Online Travel Agency (OTA) : business designed for customers to arrange their

trips, find tickets, and reserve hotels. OTAs have started business from traditional travel agency which are;

- A specialized professional (Specialized Agencies): An independent agency and is a part of the Consortium. It might be found that is better if the business is sold to customers with specialized needs, such as business man, yacht market and high end level customer
- A business from the hostel (Home-Based Agencies): Currently, the business can be done through the Internet. A businessman may adapt his residence to an office, which is economical from travelling expense to the office and do not require high investment budget.
- 2) Suppliers: Tourism suppliers in this research are hotels, airline ,car rent.

**3)** Tourism Supply Chain (TSC) : is a tourism organizational network engaging in activities from different components of tourism products/service and involve a wide range of participants in both the private and public sector.

4) Supplier Relationship management(SRM) : Product/service agreements are developed and managed with key suppliers and segments of non-key suppliers.

Purchase orders integrate with supply processes to increase productivity and overall supplier performances.

5) Supplier Selection: A set of competencies, tools and techniques that support the overall SRM process. Supplier are selected evaluated on several criteria such as price, timeliness, costs, product quality and service.

6) Systems thinking: A conceptual framework for problem-solving .Problemsolving in this way is OTAs' supplier selection method which involves pattern finding to understand and respond to the problems. The outcomes of systems thinking will depend on how the system is defined. 2124.23

### 1.5 Education/application advantages

# 1) Expected output

The deliverable will be the examination of, decision analysis, strategic choice and the results by using systems thinking to describe supplier selection and supplier relationship management. The deliverance of this research will provide the effectiveness and efficiency to the OTAs directly as;

### **Effectiveness**

- a) Helps OTAs solve supplier selection problems,
- b) Helps OTAs select more accurate criteria when making
- c) Helps model decision situations correctly, e.g. dealing specifically with ethereal factors.

## Efficiency

- a) Grants faster computation for decision information, e.g. supplier data on by Chiang Mai University OTAs' database.
- b) Grants more storage for supplier selection information that can be accessed in the future, e.g. Saving files that hold the criteria for selection and evaluation.
- c) Eliminates excessive criteria,
- d) Facilitate more efficient justification of the outcome of SRM decision making process

#### 2) Relevance to beneficiaries

The research has potential benefits for commercial and non-commercial;

a) Tourism industry: The benefits of a research to tourism industry could lead to an efficiency relationship management which would be significant decreasing level of supplier sourcing cost, and improving business processing capacity leading to increase an competitive advantage.

b) Academic Community/Researcher: they will be provided with a study for integrating their existing modeling, simulation and optimization method. This study will also contribute to the specification of systems thinking in tourism.

### **1.6 Novel contribution**

1) Knowledge Management context: The research process requires participant of the OTAs and their suppliers which make the parameters to manage the supplier selection process and supplier relationship knowledge.

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2) Systems thinking context : A holistic perspective with strategic choice and business parameters.

## 1.7 Organization of the thesis

This thesis consists of five chapters. The first chapter presents the background, statement of the problem and purpose of the study. The second chapter presents principle/ theory and literature review on nature of tourism, supply chain management, supplier relationship management, selection techniques, knowledge management and system thinking. The third chapter presents the methodology. The fourth chapter presents the result of systems thinking for tourism supplier selection of online travel agency in Chiang Mai. The fifth chapter presents a discussion and conclusions.

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