CHAPTER 2

Theory and Literature Review

2. Theory and Literature Review

2.1. Theory

Five economic concepts relate to this study. Firstly, is tourism demand; secondly, leisure consumption; thirdly, traveling time; fourthly, choosing travel destination; fifthly, the choice between full-service and low-cost airlines tourists.

2.1.1. The economic concept involving the tourism demand

The economic theory that is relevant to the study is economic consumer theory. In the theory, the customers try to manage their money income for reaching the maximize utility, that is evaluated by the preference in goods and services, under budget constraint. In term of mathematical analysis, the demand function is shown below.

Demand function Objective Maximize U(X,Y) = f(X,Y)Subject to $P_xX + P_yY < M$

The customers would like to get the maximize utility by consuming product X and Y under the price of X (P_x) and Y (P_y). Under the budget constraint (M), they will decide to consume product X and Y, so the maximum utility will be answered by Lagrange's equation as follows:

$$L = U(X,Y) - \lambda(P_x X + P_y Y - M)$$
(2.1)

In term of Lagrange's equation, the first partial derivative is taken concerning X, Y and λ and is equal to zero for finding the demand function of X and Y as follows

$$Q_x = f(P_x, P_y, M)$$
(2.2)

For the function, the demand of X and Y depends on the price of X and Y. The demand function is the direct demand (also called "Marshallian demand functions") because quantity and price have an inverse relationship according to the law of demand.

2.1.2. The economic concept involving the leisure consumption

For this concept, the customers will decide to choose between leisure and working time. If the customers should the working time (L), they will get the money income (C); on the opposite side, the customers do not get any money income if they should leisure time (R). Under the budget constraint, the customers have to get the maximize utility. With the budget constraints, it depends on money income, that earns while working (wL, where w is wage and L is working time), and the others (C_m). In term of mathematical analysis, the leisure consumption function is shown below.

Leisure consumption function	Objective	Maximize U(C,R)	
131	Subject to	$C = wL + C_m$	ļ
NE I		$M \leq Z = M$	

The customers have the difference of leisure and working time, but they have the same restriction that is time restriction (T), combining the leisure time (R) with working time (L). The equation is shown below.

T = L + RThus, L = T - R $C = w (T - R) + C_m$ $C = wT - wR + C_m$ (2.3)

For the above equation, it shows the leisure and working time have an inverse relationship, representing by - wR. If the customers increase their leisure time, the money income will decrease. On the opposite side, if the customers decrease their leisure time, the money income will increase.

2.1.3. The economic concept involving the traveling time

Under the budget constraint (Y) and time restriction (T), the customers spend the difference time on the difference destinations (T_d). For the concept of demand for time travel, total money income (Y) combines cost of time spent on transport (T_t * P_t, where T_t is time that spent on transport and P_t is price for time that spent on transport) with cost of time spent on traveling (T_d * P_d where Td is time that spent on traveling, and P_d is price for time that spent on traveling) and cost of consumption in goods and services (Q * P, where Q is quantity of goods and services and P is price of goods and services) in any destination. The total time that spent on traveling (T_d). For reaching the maximize utility, the customers should decide on the budget (Y = T_t * P_t + T_d * P_d + Q * P) and time constraint (T = T_t + T_d) as follows:

Demand for time travel function	Objective	Maximize U(Q,T _d)
385	Subject to	$Y = T_t * P_t + T_d * P_d + Q * P$
		$T = T_t + T_d$
1 EI	NA	$T_d = (Y - T_t * P_t - Q * P) / P_d$

From T_d equation, time that spent on traveling will equal to total money income subtracting by the cost of consumption in goods and services and dividing by price for the time spent on traveling, if the customers do not consume any goods and services (Q = 0).

2.1.4. The economic concept involving in choosing travel destination

There is a five-step decision-making process for choosing travel destinations (Eugenio-Martin, 2003). The First step is to decide between travel and not travel. The second step is to manage the tourism expenditure. The independent variables that are mostly used in the first and second step are socio-economic characteristics such as age and income level. The third step is to determine the length of stay and travel frequency; the independent variables that are commonly used are age and income level including health conditions of travelers and features of a tourism destination. The fourth step is to determine types of destinations by deciding the characteristics of tourism and types of destination simultaneously; the independent variables in this step are socioeconomics characteristics variables, demographic variables, and physical variables. The last step is to choose the destination. There are three independent variables as follows: (1) characteristics of tourist and household such as income level and tourism expense; (2) characteristics of choice variables such as price of good and service and facility; (3) a mixed in first and second variables such as transportation cost and opportunity cost.

2.1.5. The economic concept involving the difference of full-service and low-cost airlines tourists

There are many differences between full-service and low-cost airlines tourists. Most low-cost airlines tourists are leisure travelers because they have more available time than low-cost airlines tourists (Martinez-Garcia & Raya, 2008); however, fullservice airlines tourists are mostly business travelers who are less price elastic (Graham, 2006). A tourist who travels with the low-cost airline has more freedom to organize the trip, and they are accustomed to searching for new information, and booking tickets via Internet (Martinez-Garcia & Raya, 2008). Somehow, full-service airlines still operate via an agency. During traveling, low-cost airlines tourists prefer to stay at free accommodation such as own accommodation and of the family (Martinez-Garcia & Raya, 2008). When comparing the proportion of tourism expenditure, full-service airlines tourists spend transportation cost more than low-cost airlines tourists (Martinez-Garcia & Raya, 2008). The trip duration of low-cost airlines tourists is same as the trip duration of full-service airlines, but low-cost airlines tourists prefer the shortest trips (Martinez-Garcia & Raya, 2008).

2.2. Literature Review by Chiang Mai University

Based on a review of the literature, many factors influence on the length of stay and tourism expenditure. Both lengths of stay and tourism expenditure affect tourism demand. Moreover, there are many previous studies involving the low-cost airlines in term of tourism.

2.2.1. The study involving the factor that influences on the length of stay

Length of stay is the critical element to define tourism demand; it is instrumental to plan and manage on the traveling (Bull, 1995; Dellaert, Ettema & Lindh,

1998; Decrop & Snelders, 2004). Furthermore, it is the crucial factor to estimate tourism expenditure (Davies and Mangan, 1992; Legoherel, 1998; Mok and Iverson, 2000). There are few studies on a microeconomic level that is related to this factor. For example, Fleischer and Pizam (2002) researched on the length of stay of older tourists in Israel using Tobit model while Alegre and Pou (2007) analyzed the length of stay from English and German tourist on the Balearic Island by using a discrete choice Logit model. Gokovali et al. (2007) and Barros and Correia (2008) employed duration models to study the length of stay in Turkey and Latin America tourism respectively. Martinez-Garcia and Raya (2008) also used duration models to estimate the length of stay of lowcost tourists who are flying with low-cost airlines in Spain.

In previous studies, many variables affect the length of stay. For instance, Oppermann (1995 & 1997), Seaton and Palmer (1997), and Sung et al. (2001) claimed the length of stay depended on six variables: age, nationality, occupation status, repeat visit behavior, stage in the family life cycle, and physical distance. However, some results of studies indicated age did not affect the length of stay (Alegre and Pou, 2007 & Gokovali et al., 2007). In the study of Alegre and Pou (2007), students and pensioners stayed longer by comparing the others; moreover, the tourists who chose to stay in villas and apartments also stayed longer than the other. Gokovali et al. (2007) demonstrated the only visitor of yacht accommodation stayed longer than the others, and Germans stayed longer than the British. In Martinez-Garcia and Raya (2008) discovered that visitor over the aged of 60 and Irish, Dutch, Belgian and French were more likely to stay longer than Germans and British. Moreover, Gomes de Menezes, Moniz and Cabral Vieira (2008) found a repeat visitor stayed longer than other of the visitor.

2.2.2. The study involving the factor that influences on tourism expenditure

Travel and Tourist products are perishable and heterogeneous, and the behavior of tourists is complex (Dwyer, Forsyth and Dwyer, 2010). Factors affecting the tourist behavior depends on types of dependent variable. In this study, tourism expenditure is determined as the dependent variable. Many previous empirical studies researched expenditure. Most studies, for example, claimed that tourism expenditure is affected by traveller satisfaction (Anderson et al., 1994 cited in Zhang et al., 2010; Disegna & Osti, 2013), socio-economic characteristics, type of accommodation, trip objectives, economic variables, and psychological variables (Agarnal & Yochum, 2000; Downward & Lumsdon, 2000, 2003; Mok & Iverson, 2000; Ryan, 2003; Jang et al, 2004; Lehto et al, 2004; Laesser & Crouch, 2006; Craggs & Schofield, 2009; Wang & Davidson, 2010; Kim et al 2011).

There are many models to estimate the tourist expenditure. For example, Wang and Davidson (2010) and Lew and Ng (2012) used a linear regression model to determine the expenditure. Somehow, the expenditure could be a positive value, so to avoid zero expenditure problem, some studies employed Tobit regression model to analyze instead (Leones, Colby, and Crandall, 1998; Lee 2001; Barquet et al., 2011; and Kim et al., 2011). Additionally, Wu, Zhang, and Fujiwara (2013) analyzed expenditure level by using a Tobit model. Mak et al. (1977) and Nicolau and Más (2005) used a system of equation, that is based on Heckit modeling, due to analyzing the decision-making process together with a length of stay. Seiler, Hsieh, Seiler, and Hsieh (2002) estimated the expenditure of Taiwanese tourist who travels to Singapore and the United States by using structural equation modeling.

Not only socio-economics and economic variables, but also psychological variables - such as taste, trip motivation, and ego - are influenced on tourism demand (Thrane, 2002; Wang et al, 2006; Mehmetoglu, 2007).

From most previous studies, level of income influences tourism expenditure (Mak et al, 1977; Asgary et al, 1997; Leones et al, 1998; Agarwal & Yochum, 1999 & 2000; Dávila et al, 1999; Downward & Lumsdon, 2000, 2003; Lee, 2001; Cannon & Ford, 2002; Chhabra et al, 2002; Seiler et al, 2002; Thrane, 2002; Jang et al, 2004, 2005; Lehto et al, 2004; Nicolau and Má;s, 2005 Wang et al, 2006; Mehmetoglu, 2007). However, the studies of Aquilo Perez & Juaneda Sampol (2000), Henthorne (2000), Lehto et al. (2001), Laesser & Crouch (2006), and Pouta et al. (2006) found that income did not affect expenditure.

A different relationship holds between age and expenditure; some studies claim that older tourists spent more than younger (Henthorne, 2000; Thrane, 2002; Jang et al., 2004; Mehmetoglu, 2007). However, some research found the oposite result

(Wang et al., 2006). However, Agarwal & Yochum (1999, 2000), Lee (2001), or found that age is insignificant (Chhabra et al., 2002).

Other variables influenced spending, such as gender (Agarwal & Yochum, 2000; Henthorne, 2000; Seiler et al, 2002; Thrane, 2002; Jang et al, 2004; Lehto et al, 2004; Wang et al, 2006), nationality (Asgary et al, 1997; Leones et al, 1998; Agarwal & Yochum, 2000; Lee, 2001; Lehto et al, 2001; Cannon & Ford, 2002; Thrane, 2002; Laesser & Crouch, 2006), and level of education (Mak et al, 1977; Asgary et al, 1997; Cannon & Ford, 2002; Chhabra et al, 2002; Seiler et al, 2002; Nicolau and Más, 2005).

2.2.3. The study involving the low-cost airlines in term of tourism

There is much research involving traveling with low-cost airlines. The establishment of low-cost airlines influence tourism demand; it brings the growth of international tourism demand because of the low airfare. In the study of Bieger and Wittmer (2006), the low-cost airlines opened the new tourism market. Some research claimed that low-cost airlines increased the number of international tourists in their regions (Bel, 2009; Quintiliani, 2009; Donzelli, 2010; Graham & Dennis, 2010). Some studies showed the differences between the tourists who traveled with low-cost airlines and full-service airlines (O'Connell & Williams, 2005), and the differences between the low-cost tourists in different countries (Ryan & Birks, 2006). Saladié et al. (2014) studied the influence of low-cost airlines routes on the selection of tourist destination. In the study of Martínez-Garcia and Royo-Vela (2010), they researched into the characteristics of tourists who are traveling with low-cost airlines in Spain.

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