

ARE BUTLER'S TOURISM AREA LIFE CYCLE AND PLOG'S PSYCHOGRAPHIC MODEL CORRECT?

Kaewta Muangasame
Mahidol University International College

There are over 200 citations according to Butler and Plog's models while only few researches have criticized these models considering the validity of the models in research and their limitation. Therefore, this paper aims to present the limitations of these two models to apply in tourism research. Using a case study of Thailand, the paper illustrates complicated nature of the destination and diversification in tourism activities applying the four characteristics of tourism product from marketing aspect. Finally, it analyzed the applicability of the Chaos Model of tourism in terms of understanding the complexity of tourism in recent situation in comparison to those two models that can be wrong under conditions of how the model was created and their research validity.

Keywords: *Butler's model, tourism area life cycle, Plogs' model, Limitation, Thailand, complexity of tourism*

JEL Classification: *L83, M1, O1*

INTRODUCTION

In tourism field, Butler's life cycle model and Plog's Psychographic model are very popular. These models have been discussed and cited in several academic researches, with over 200 citations for each. Many scholar, like Haywood in 1986 to Garay and Canoves in 2011, have used these two models in their research assessing different aspects such as how the tourist-area life cycle be made operational. Only few researches have criticized these models considering the validity of the models in research and their limitations. For instance, McKercher (2005) pointed that Butler's work usually in consort with Plog's idea and was used to support the belief that tourism destroy tourism and need to be controlled.

This paper aims to present the limitations of these two models to apply in tourism research. Using a case study of Thailand the paper



illustrates complicated nature of the destination and diversification in tourism activities. Finally, it analyzes the applicability of the Chaos Model of tourism in terms of understanding the complexity of tourism in recent situation in comparison to those two models.

LITERATURE REVIEW

This section explains how the Butler tourism area life cycle and Plog's Psychographic Personality model work including the critical points from different scholars regarding these models.

Butler's model

Butler's (1980) graph clearly marks a section of the S-curve as the critical range of elements of capacity (Figure 1). Thus, it is strange that no author has discussed in detail about the carrying capacity for tourism even though this part is most essential for its conceptualization (Singh, 2011). In other words, traditional life cycle from marketing including "introduction, growth, maturity and decline" still has been criticized in terms of validity of the life cycle concept. It is better to combine this model with other models such as Boston Consulting Group's portfolio to provide a more comprehensive framework and more powerful basis to classify diverse categories of products (Barksdale et al, 1982). From this point, the destination life cycle was modified without considering this fact.

Basically, the product life cycle underpin the proposition in market growth and competitive characteristics. On the other hand, the destination life cycle also illustrated the pattern of its life-to-death analogy that helped re-orientate thinking about tourist area by suggesting new relationships. The life cycle model as presented in Figure 1 comprises different stages: a development stage, a consolidation stage, a stagnation stage and either decline or rejuvenation stage (Butler, 1980). In addition as it can be seen in Figure 3 the characteristics of tourist destination life cycle presented different patterns in each stage. It mainly explained from the beginning that visitor will come to an area in small numbers and restricted by lack of access, facilities and local knowledge. With marketing effort to raise awareness the number of visitors will increase and the area's popularity will grow rapidly. From this stage, the environmental impact becomes important often needing control in the tourism activities especially with regards to the carrying capacity. From this point, Haywood (1986) argued that the carrying capacity is more

complex and a perceptual issue. Therefore, Butler’s life cycle model needs to emphasize on how to measure whether the tourist reached to the consolidation or stagnation stage. In addition, it is also necessary to determine how to properly define the carrying capacity of particular area.

Butler himself had mentioned the limitations of his study mainly on obtaining data on visitors for a long period in any particular area that creates the problem in testing the basic hypothesis and modeling the curve for specific areas. Singh (2011) reported that the Butler’ model may take at least a hundred year to understand how the tourist areas develop and have a life cycle to prove the model as well as concerning a carrying capacity and deal with associated problems. But scholars have not provided any appropriate solution to address such limitations.

Clearly there have been recent interpretations about the development of tourist destination but Richard Butler has been studying these elements for few decades. Garay & Canoves (2010) attempted to test whether Butler’s model can be applicable to a long term historical study of a destination in simple analysis or it needed to be combined with other aspects. Tooman (1997) also stated that the empirical tests of the Butler’ model has been proven inconclusive resulting in the inherent complexity of destinations. Another point is that it is not clear what destination actually mean in Butler’ model. In fact, it was undefined and not clear whether it indicated to brands, or positioning, or product classes (McKercher, 2005).

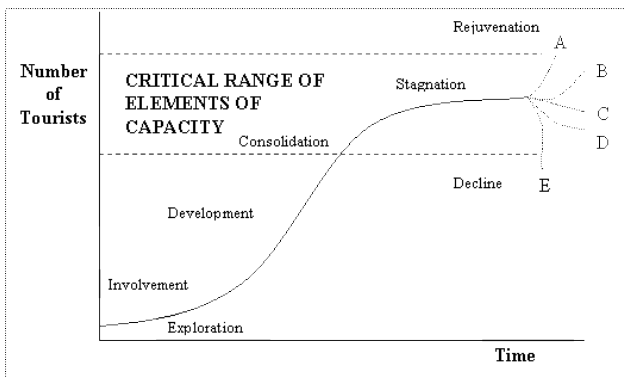


Figure 1. Hypothetical Evolution of a Tourist Area Life Cycle

Source: Adapted from Miller and Gallucci (2004)

Plog's model

According to Stanley Plog's model (2001), a pioneer in the psychographics of travelers, the type of tourists a destination attracts was categorized into the destination's position of Butler's cycle as shown in Figure 2. Plog's categorization (2001) is based on the level of personality types. The model identified five personality types in terms of the level of comfort they desire and how intrepid is their travel preferences. The personality types ranged from Dependables, through Near- Dependables, Mid centrics, and Near-Venturers, to Venturers on the extreme end. Figure 3 further illustrates that all types of tourists as mentioned in the typology (Figure 2) have different behavior while traveling. For example, Venturers are outgoing and self confident in their behavior. Such travelers are characterized by considerable degree of adventured activities, self-confidence, willing to reach out, and experiment with life. On the other hand, Dependables or Psychocentric are the people who prefer the familiar travel destinations, like commonplace activities at travel destinations, considerable relaxation, and enjoy tour packaging with heavy scheduling of activities. These types of travelers were criticized as less income and less time than Venturers (Plog, 1974).

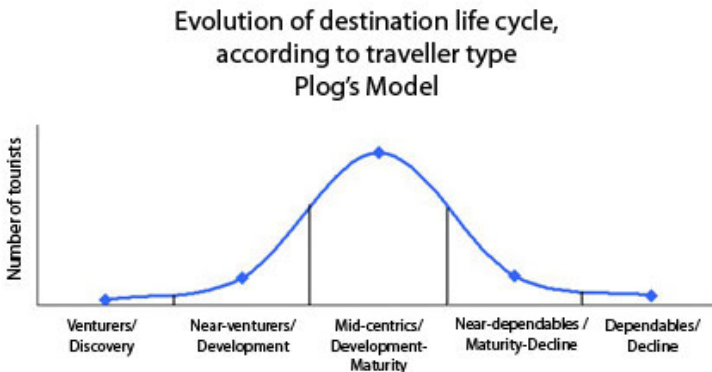


Figure 2. Evolution of destination life cycle according to traveller type Plog's Model

Source: Stanley Plog (2001)

Venturers, who travel frequently, take long trip and spend more per day, avoid crowded or touristic places, accept unconventional accommodation, prefer authentic local arts and craft, and dislike event staged for tourist. They are more fascinated to explore this type of tourist

to the new product development and addressing their needs. They are interested and can help to move goods and service more quickly and efficiently through the distribution system. It was often criticized that this type of Venturer are fixed in long term and never change to other types.

However, Plog also stated that once the destination become popular, the mid-centric audience starts to arrive. The tourism business started to increase more activities in varied sectors such as chain resort, tourist shops as it can be summarized in Figure 3 to show in detail the characteristics of traveller in each typology. By this time, allocentrics start to move out from the destination where it has lost its sense of naturalness, and a smaller number of Near-venturers also visit the place.

Many academics have criticized the mechanism of Plog's model to indicate the limitations. Liu et al (2008) stated that the validity of Plog's model need to resolve more empirical work on destination planning as the study was replicated to test Butler's life cycle model. It thereby allows a comparison between the frameworks and such comparison would assist tourism related organizations in making more informed choices about assessing their own point in the destination life cycle. Singh (2011) also pointed out the limitation of Plog's model regarding the fact that individual tourists are combined in both short and long life in cycles. In addition, he argued that the destination alone could not explain tourist life cycles, as tourists are complex in varied aspects requiring detail understanding of the collaboration and partnership regarding the destination and tourist characteristics.

DISCUSSION

This section discusses the limitations of Butler's and Plog's model and why both models are wrong. As it can be seen in the Figure 3, there are several criticism from varied scholars, which can be divided into two specific areas; limitation of understanding tourism complexity and its methodology.

Butler's model

Understanding tourism complexity

McKercher (2005) argued that Butler's destination life cycle model failed to consider the definition of destination, as it can be destination branding by using marketing terminology. From this point, destination is not single product clustered geographically. It is not straightforward to

categorize the movement of tourism applying the traditional product life cycle. It was considered ineffective analytical tools for analyzing multi-product venture. Validity of traditional Life cycle needs more consideration. Barksdale et al (1982: 77) pointed the major limitation of the life cycle model. According to them, in Butler's model all products or brands-in the same stage of cycle- face the same risks and enjoy the same opportunities, which ignores the reality of the marketplace. It is the primary limitation on the usefulness of life cycle model as a framework for strategic decision.

Tourism product, in particular, destination is more multifaceted where unclear scopes, difficult to measure the achievement from which logical factors- economic, community- in one stage, how it moves to next stages from "development into consolidation" are still blurred. Haywood (1986) suggested six conceptual and measurement decisions: unit of analysis, relevant market, pattern and stages of the tourist area life cycle, identification of the area's shape in the life cycle, determination of the unit of measurement, and the relevant time unit. Interestingly, product life cycle is developed to understand the marketing terms, when Butler's destination life cycle adopt it without considering marketing elements such as sales volume, specific target, terms of investment, and the competitors. From this point, to achieve the maturity point for long life cycle; the model misses the aspects of sustainable development in terms of providing solution or strategy before reaching to maturity and decline stage. Therefore, it can be concluded that the model is not appropriate to use alone without other supportive models.

The simplicity of Butler's model did not provide the reflective understanding towards the special characteristics of tourism products from the four basic elements created by Kotler et al (2003). Those four elements are: (1) Intangibility, (2) Perishability, (3) Inseparability, and (4) Variability in terms of consistency management. Intangibility represents high risk associated with services. It is difficult to evaluate service before the experience. In the destination life cycle model it is also hard to forecast the destination condition before tourism demand arrives.

TOURISMOS: AN INTERNATIONAL MULTIDISCIPLINARY JOURNAL OF TOURISM
 Volume 9, Number 1, Spring 2014, pp. 207-221
 UDC: 338.48+640(050)

Plog	Allocentrics		Mid-Centrics	Psychocentric	
	Venturers	Near-venturers	Mid-centrics	Near-dependables	Dependables
Butler	Discovery	Development	Maturity	Maturity -Decline	Decline(1) Rejuvenation(2)
Characteristics of the destination life cycle	<ul style="list-style-type: none"> - No specific facilities - Only local facilities - Physical fabric unchanged by tourism - Little significance to economic and social life of permanent resident 	<ul style="list-style-type: none"> - Begin to provide facilities for visitor - High contact between visitors and locals - Local involve to provide catering for visitor - Tourist season emerging and adjustment change in social pattern - Some organization in tourist travel arrangement can be expected - Start pressure put upon government to improve transportation 	<ul style="list-style-type: none"> - Well defined tourist market area - Heavy advertising - Local & involvement control will decline - Local fade out - Up to date facilities provide by external organization - Major franchise chain represented but few psychocentric (Dependable) 	<ul style="list-style-type: none"> - Peak numbers of tourist have been reached - Capacity levels - Exceeded attendant environmental social, economic problem - Good reputation but no longer in fashion - Repeat visitor 	<p>Decline (1)</p> <ul style="list-style-type: none"> - No newer attraction - Target weekend and day trips - Tourist facilities often replaced - Less attractive to tourists - Hotel may become a condominiums, retirement homes <p>Rejuvenation (2)</p> <ul style="list-style-type: none"> - Man-made attraction casino - New market may be not allocentric section - More target on specific interest /activity group - Timeless attractiveness
Characteristics of traveler	<ul style="list-style-type: none"> - Travel frequently - Love to explore the world - Take relatively long trip - Spend more per day than average traveler - Prefer unusual, undeveloped destination - Avoid crowded, touristy places - Accept unconventional accommodations - Enjoy participating in local customs & habits/ prefer authentic local arts and craft - Dislike events staged for tourists - Prefer free, independent travel - Enjoy activities when traveling - Seek new experience each year 	<ul style="list-style-type: none"> - Excited about the new destinations that they learn from venturer friends - Prefer greater comfort, ask for more services such as hotels restaurants, shops etc. 	<ul style="list-style-type: none"> - Love to travel to the location that has a reasonable infrastructure that was built to meet the needs of the near-venturers 	<ul style="list-style-type: none"> - Similar to dependables but not so timorous as the dependables - Travel less, stay only for short time, - Arrive on package tours when they do travel - Spend little money as the same with dependables 	<ul style="list-style-type: none"> - Unadventurous, cautious & conservative in their thinking and spending habits - Prefer popular brands and locations - Desire little activity - Favor emulating the choices and behaviors of others rather than making an original choice - Prefer comfortable, familiar brand names for lodging, food and beverage - Happy when everything is just like home except scenery
New emerging tourism product	(1) Community Base tourism (2) Special Interest Tourism (3) Adventure tourism (4) Spiritual tourism (5) Health tourism (6) Cultural Heritage tourism (7) Mice tourism (8) Sport tourism (9) Medical tourism (10) Slow tourism (11) Senior tourism				

Perishability is related to ways of understanding capacity and demand management. Butler's model emphasized the supply side but considered an unclear target market, as illustrated by the implications in each stage, particularly carrying capacity and the limits of growth. Weaver (2000) argued that carrying capacity is a subjective and complex social construct rather than an ecological absolute. McKercher (2005) argued that this model can be used to identify potential risk factors at each stage, but it was not designed to be a predictive model. Instead, it represents an on-going process that continues to involve the local community in tourism, contact between hosts and guests, investment, destination image, and marketing activities. *Inseparability* refers to the relationship between tourists and destinations. As tourists and destinations become part of the tourism mechanism, a moment of truth is required regarding how to manage the destination as well as the visitors. The model must consider the fact that individual tourists are unpredictable, and it is difficult to understand different dimensions of their expectations and motivation. It is important to focus on the products that satisfy tourists rather than using time and the number of tourists to identify changes.

Finally, *variability in terms of consistency management* is also crucial. The model must consider the volatility of tourism demand, such as negative events and natural disasters. Wang (2009) stated that tourists are affected primarily by *safety and health* issues, which are the key to maintaining demand in both international and domestic markets. *Income* is one of the most frequently used explanatory variables when investigating tourist demand (Jensen, 1998; Dritsakis, 2004). The *change of international and domestic policies and plans*, such as bans on or liberalization of the tourism market and governmental efforts toward environmental concerns, may result in increasing numbers of tourist arrivals (Kim & Wong, 2006). All of these elements must be considered as main drivers of tourism development. As noted, destinations are complex. It is not sufficient to apply only "time" and numbers to analyse tourism development, particularly in the recent situation in which tourism products have become complicated.

Dhalla and Yuspeh (1976) argued that the product life cycle can be misleading and may force marketers and planners to discontinue their products prematurely when they enter a decline stage. Singh (2011) also compared evolution and the life cycle. It should be emphasized that evolution is usually a linear process, unlike the life cycle. It is therefore important to consider this divergence, in which some branches come to a dead and others do not.

Methodology of Butler's model

Another limitation of Butler's model is the methodology used in his research. Garay and Canoves (2011) noted that the main weakness of the methodology used in Butler's destination life cycle is the time horizon of analysis. This type of analysis requires long-term data and analysis. The evolution and decline of tourism has not necessarily been associated with the course of one large life cycle; it may undergo several consecutive life cycles connected with the stages of tourism. Johnston (2001) noted that numerous studies have examined destination areas much larger than the resort-city scale of Butler's model. In fact, the sampling site was limited and impractical when applied to multiple site development in the tourism sector. Resorts are not good representatives of tourism destinations as a whole.

Plog's model

Scholars have also criticised Plog's model regarding its fit with Butler's destination life cycle model. Plog's model emphasized the psychology of travel for 16 major sponsor airlines with the aim of determining who is not flying, why they are not flying, and what can be done to interest them in flying (Plog, 1974). Interestingly, this hypothesis was subsequently tested to categorise the typology of tourists. Due to this fact, the validity and trustworthiness of Plog's research is questionable and can be considered the limitation to considering it for wider application.

Dimanche and Hautz (1994) stated that the concept used in Plog's model has been subject to little independent empirical verification. Cooper et al. (1999) also noted that the concept fails to account for the fact that tourists travel with different motivations on different occasions. For example, a vacationer may take a winter ski vacation to an allocentric destination, followed later in the year by a main holiday to a psychocentric destination. Although travelers may be allocentric in nature, financial or other factors may cause them to demonstrate mid-centric travel patterns (Crossley & Jamieson, 1993). Garay and Canoves (2011) reported that changes may be prevented by money and health. Lowyck et al. (1993) also noted that people are complex, and it may not be possible to place travelers in a single category.

Similarly, Smith noted that the theory was designed for U.S.-based travelers and does not work well for other nationalities. Lastly, the model does not predict realistic travel behaviour or present empirically verifiable

concepts, and it does not explain a large percentage of all tourism behaviour. Therefore, it is impractical for use by tourism marketers. Litvin (2006) stated that Plog's model should be supported by a theory that clearly understands and avoids "abstruse new terms" and "complex multivariate formulations" to prevent the model from being ineffective as a predictor of travel behaviour. This could help researchers to understand people's travel aspirations.

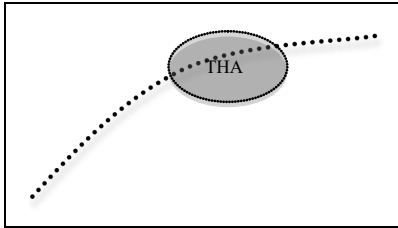
Considering both Butler's and Plog's models, it can be concluded that Butler's destination life cycle is limited in its use due to misleading facts (McKercher, 2005; Barksdale et al., 1982; Haywood, 1986; Singh, 2011). Plog's model is also considered an imperfect model with unclear boundaries for application (Liu et al., 2008; Dimanche & Hautz, 1994; Litvin, 2006). Liu et al. (2008) stated that these two models only consider predictable phases of the destination experience unless proactive plans are undertaken to avoid the slide toward decline.

Tourism is complex and diverse. One destination can be distinguished from other destinations or tourism products in this case. Figure 4 illustrates a realistic and practical approach. These two models may be appropriate to the recent situation or for strategic marketing plan development. Both models can be used in academic contexts to identify problems, but they should be applied with other models to support a solution.

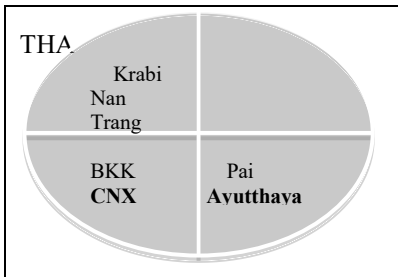
The new national tourism plan of Thailand (2012-2016) aims to position Thailand as one of the top seven tourism destinations in Asia, as indicated by The Travel & Tourism Competitiveness Report Index. The target markets are clearly divided by regions and activities, such as Europe, Asia, America, and the BRIC group as well as honeymoons, health tourism, sports tourism, and community-based tourism.

This section discusses the case of This section discusses the case of Chiang Mai (CNX). This is a good example that is positioned as a cash cow in the Boston Consulting Group. This destination is part of the product class for Thailand, which can be seen in other destinations such as Bangkok, Pattaya, Krabi, and Trang in different stages. A competitor analysis or market share and positioning could be appropriately supported by the destination life cycle. The Boston Consulting Group focuses on product portfolio analysis, in which each product unit is classified according to its potential for growth and its competitive position. Thus, we will use this case to explain the situation of the destination.

Figure 4: Application of tourism complexity: A case of Thailand



Destination Life Cycle: Thailand (THA) is in maturity stage



Boston Consulting Group Metric (BCG): Thailand combines different destinations or product classes, which classified by market share and market growth

Destination Life Cycle A Case of Chiang Mai	Target by traditional market	Target by lifestyle/product	Motivation/ Determinant	Plog's Psychology model
Chiang Mai Urban areas- Maturity Allocentric to Dependables Other areas- Venturer to Near Venturer	Inbound market - Western - Asian	-Backpacker -Leisure honeymooner -Retirement -volunteerist -community base tourist	- Escapism - Relaxation - Wonderlust - Health conscious - Spiritual fulfillment - Develop knowledge skills -Adventurous Basic Determinant - Health - Income - Time - Safety of destination	Mix- all in one destination including - Venturers - Near Venturers - Allocentrics - Near Dependables - Dependables
	Domestic market	- Urban traveler - leisure traveler -volunteerist		

Figure 4. Application of tourism complexity applying Butler's and Plog's Models

As noted by Garay and Canoves (2011), the destination life cycle does not offer a complete guide on how the transition from one life cycle to the next actually occurs. However, if we combine this model with the BCG, it may improve. Moreover, the typology of different tourists in one destination can be divided as presented in Figure 4. The target market and decision process have shown varied factors related to the conflict between Butler's destination life cycle and Plog's model.

According to Miller and Gallucci (2004), a practical approach suggests that Butler's model cannot be used with all market segments, whereas Plog's model does not explain extrinsic and intrinsic motivation caused by external circumstances or internal characteristics. According to Swarbrooke (2006) from demand side, tourists' motivations are complex and diverse. Therefore, internal or external determinants are needed rather than focusing only on tourists' personalities. In addition, the supply side as the sustainable tourism development from exploiting pooled or shared resources is often perceived as being complicated, (Dodd and Butler, 2009).

Plog (1974, 2001) may have gone too far to make his model realistic because he presumed that personality determines not only tourist behaviour but also the evolution of destinations. Destination personality may be an analogy for the destination image that we talk of today or the concept of brand personality proposed in marketing. However, the development, evolution, or life cycle of a destination is too complex to be accommodated within the personality framework (Chen et al., 2011).

The chaos model of tourism may be correct

The limitations of Butler's destination life cycle model and Plog's model are raised in an attempt to identify the correct model in this case. The author finds that there are no entirely accurate models for tourism because the field is multi-disciplinary. The most flexible model to understand the nature of tourism was created by McKercher (1999) based on the principles of chaos theory and complexity theory. He stated that the model is open, with movement occurring broadly from the traveler to the outputs. Each element of the model is connected with other elements, either directly or by no more than one step. Together, nine elements are connected from the traveler. Those elements include communication, consideration of factors that influence the electiveness of the communication vectors used, the destination or internal tourism community (consisting of all business involved in tourism at the destination), external tourism agency, and other tourism-related

externalities, such as alternative tourism destinations. The other elements are non-tourism-related externalities or macro-environmental forces, such as changing political, economic, or social conditions, war, or natural disasters that affect people's ability to travel. Outputs from the system may be both desired and undesired, and rogues or chaos makers can push a system to the edge of chaos.

McKercher (1999) noted that this model was developed in an attempt to explain the relationships between the varied elements constituting a tourism system that are not fully explained by the existing models. Russell (cited in Butler, 2006) stated that blending the destination life cycle with the principles of chaos and complexity theory can help to better understand the evolution of destinations.

CONCLUSION

It cannot be denied that tourism destinations are complex and not clearly defined. The summary can be divided into supply and demand aspects with varied functions in each part.

On the supply side, Butler's destination life cycle model can be considered incorrect based on two main aspects: the fact that the model was created to understand the complexity of tourism destinations and the validity of the research. Many limitations of this model have been noted that may force marketers and planners to discontinue their destinations during declines. Interestingly, there are no cycles in tourism; it is more likely a chaos system or multi-layered dialogue that is not linear.

On the demand side, Plog's model was created to understand tourist behaviour. However, as mentioned earlier in the limitations, Plog's model can also be considered incorrect. For example, the concept fails to account for the fact that tourists travel with different motivations on different occasions. In addition, people are complex, and it may not be possible to place travelers in a single simple category. The theory was designed specifically for U.S.-based travelers and is not applicable for other nationalities. These factors can be considered the limitations of the model.

Overall, the chaos model of tourism proposed by McKercher (1999) may be more appropriate to blend these two models for further development in the tourism context. However, for sustainable tourism development, it is also necessary to emphasize understanding of global changes and the movement of tourism in future research.

REFERENCES

- Barksdale, H., Harris, C. & Harris, C. (1982). Portfolio Analysis and the Product Life Cycle. *Long Range Planning*, Vol.15, No.6, pp.74-83.
- Butler, R. (1980). The concept of a tourist Area Cycle of Evolution: Implication for Management of Resources. *Canadian Geographer*, Vol.24, No.1, pp.5-20.
- Dodds, R. & Butler, R. (2009). Barriers to implementing Sustainable Tourism Policy in Mass Tourism Destinations, *TOURISMOS*, Vol.5, No.1, pp.35-53.
- Cooper et al. (1999). Tourism Principles & Practices; Goeldner and Ritchie, Tourism, Principles, Practices and Philosophies; and S. Hudson "Consumer Behavior Related to Tourism" in *Consumer Behavior in Travel and Tourism*, ed. A. Pizam and Y. Manfeld, New York: Haworth Hospitality Press, pp. 7-32.
- Crossley, J. & Jamieson, L. (1993). *Introduction to Commercial and Entrepreneurial Recreation*. Champaign, IL, Sagamore Publishing.
- Dhalla, N. & Yuspeh, S. (1976). Forget the Product Life Cycle concept. *Harvard Business Review*, [Http://www.kdischool.ac.kr/UserFiles/File/2006%20Spring/GLP%20Courses/SS_S004/Forget%20the%20PLC%20concept.pdf](http://www.kdischool.ac.kr/UserFiles/File/2006%20Spring/GLP%20Courses/SS_S004/Forget%20the%20PLC%20concept.pdf). Accessed the 10th of November 2011.
- Dimanche, F. & Havitz, M. (1994). Consumer Behavior and Tourism: Review and Extension of Four Study Areas. In J.C. Crofts and W.F. van Raaij, *Economic Psychology of Travel and Tourism* (pp.37-57), New York: Haworth.
- Dritsakis, N. (2004). Cointegration analysis of German and British tourism demand for Greece. *Tourism Management*, Vol.25, pp.11-119.
- Garay, L. & Canoves, G. (2011). Life Cycles, Stages, and Tourism History: The Catalonia (Spain) Experience. *Annals of Tourism Research*, Vol.38, No.2, pp.651-671.
- Haywood, M. (1986). Can the tourist-area life cycle be made operational? *Tourism Management*, September.
- Johnston, C. (2001) Shoring the foundations of the destination life cycle model, Part 1: Ontological and epistemological considerations. *Tourism Geographies*, Vol.3, No.1, pp.2-28.
- Kim, S. & Wong, K. (2006). Effects of news shock on inbound tourist demand volatility in Korea. *Journal of Travel Research*, Vol.44, pp.457-466.
- Liu, Z., Siguaw, J. & Cathy, A. (2008). Using Tourist Travel Habits and Preferences to Assess Strategic Destination Positioning: The Case of Costa Rica. *Cornell Hospitality Quarterly*, Vol.49, pp.258-281.
- Lowyck, L., Langenhove, & Bolaert, L. (1993). Typologies and tourist roles. In P.Johnson and B. Thomas, *Choice and demand in tourism*, (pp.13-32). London,Mansell.

- Litvin, W. (2006). Revisiting Plog's model of allocentricity and Psychocentricity one more time. *Cornell Hotel and Restaurant Administration Quarterly*, Vol.47, No.3, pp.245-53.
- Miller, M.L. & V.F. Gallucci, (2004). Quantitative Tourism and Fishery Management: Some Applications of the Logistic Model. submitted to Tourism in Marine Environments, 2004.
- McKercher, B. (2005). Destinations as Products? A Reflection on Butler's Life cycle. *Tourism Recreation Research*, Vol.30, No.3, pp.97-102.
- McKercher, B. (1999). A chaos approach to tourism. *Tourism Management*, Vol.20, pp.425-434.
- Philip, K., Bowen, J. & Makens, J. (2003). *Marketing for Hospitality and Tourism*, 3rd ed. New Jersey, Prentice Hall.
- Plog, S. (1974). Why Destination Area Rise and Fall in Popularity. *The Cornell Hotel and Restaurant Administration Quarterly*, Vol.14, No.4, pp.55-58.
- Plog, S. (2001). Why Destination Area Rise and Fall in Popularity: An Update of a Cornell Quarterly Classic. *The Cornell Hotel and Restaurant Administration Quarterly*, Vol. 42, No.3, pp.13-24.
- Russell, R. (2006). The contribution of Entrepreneurship theory to the TALC Model. In R. Butler (Eds.) *The Tourism Area Life Cycle Vol.2; Conceptual and Theoretical Issues* (pp.105-123), UK: Channel View Publication.
- Singh, S. (2011). The Tourism Area Life Cycle: A Clarification. *Annals of Tourism Research*, Vol.38, pp. 1178-1187.
- Swarbrooke, H. (2006). *Consumer behaviour in Tourism*, 2nd ed. Oxford, Elsevier.
- Tooman, A. (1997). Applications of the Tourism Life Cycle Model. *Annals of Tourism Research*, Vol.24, No.1, pp.214-224.
- Wang, Y. (2009). The impact of crisis events and macroeconomic activity on Taiwan's international inbound tourism demand. *Tourism Management*, Vol.30, pp.75-82.
- Weaver, D. (2000). A Broad Context Model of Destination Development Scenarios. *Tourism Management*, Vol.20, pp.411-423.

SUBMITTED: JUN 2013

REVISION SUBMITTED: OCT 2013

ACCEPTED: JAN 2014

REFEREED ANONYMOUSLY

Kaewta Muangasame (kaewta.mua@mahidol.ac.th) is a Lecturer and Researcher at Mahidol University International College, Division of Tourism and Hospitality Management, 999 Salaya, Phutthamonthon, Nakhon Pathom 73170, Thailand.