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## **Factors Affecting an Increase in Flights to Nakhon Phanom Province: A Gateway to Great Mekong Subregion (GMS)**

Jirawan Deeprasert

Rattanakosin International College of Creative Entrepreneurship

Rajamangala University of Technology Rattanakosin, Nakhon Pathom, Thailand

E-mail: kamolmasratana@hotmail.com

### **Abstract**

The context of this study was Nakhon Phanom Province which has been identified as a gateway to Great Mekong Subregion (GMS) and the connecting point for Thailand, Lao PDR, Vietnam, and Southern part of China by Highway R 12. Its location in the Northeastern part of Thailand with the border connected to Lao People's Democratic Republic (Lao PDR) is a vital logistic route for economic growth of the Great Mekong Subregion (GMS). This research aimed to study factors on travel behavior of visitors that affect an increase in flights to Nakhon Phanom Province. The researcher used both quantitative and qualitative research methods. The participants in the study were 400 travelers selected on a voluntary basis. The obtained data were analyzed for descriptive statistics and hypothesis testing in stepwise multiple regressions. Qualitative data from semi-structure interviews were concluded from a content analysis. The triangulation method was used to combine all data to give a comprehensive picture of the participants' responses in the study.

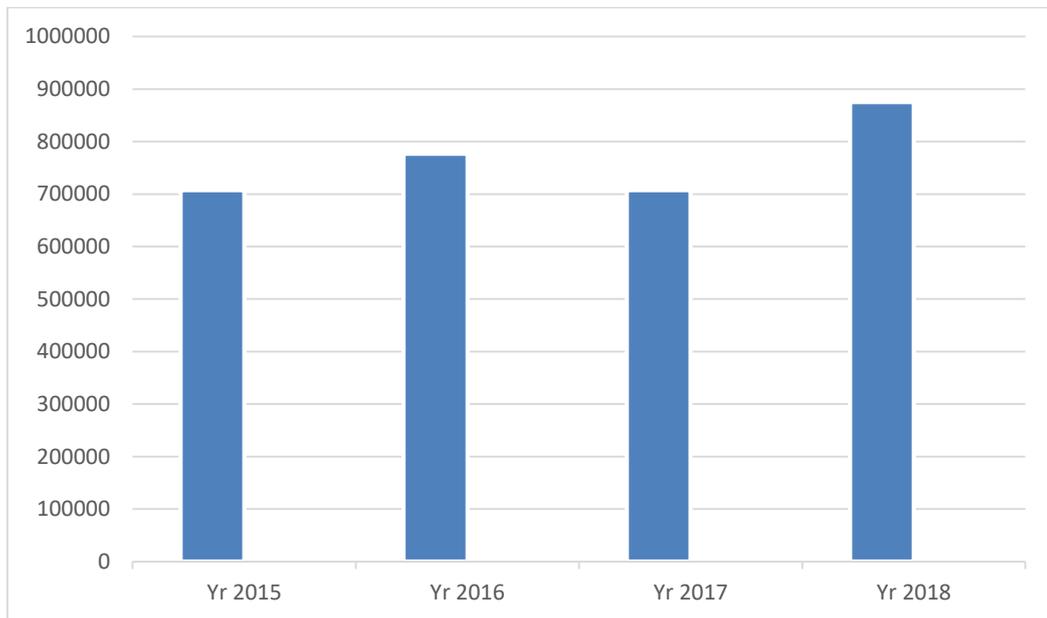
The *quantitative results* revealed that most of the participants traveled to Nakhon Phanom Province only one time (35.8%) for the reason of sightseeing (57%) in the length of stay for 2-3 days per trip (52.3%), between January and March (46.8%) as the high season. They bought air ticket online (41.8%), in particular, from Thai Air Asia Airline (84.3%). The marketing mix factors-- physical environment (Mean =3.89), process (Mean =3.83) and personnel (Mean =3.80) affected the visitors. Air transport (Mean = 4.28), targeted special economic area (Mean = 4.27) and investment promotion (Mean =4.26) affected the development of Nakhon Phanom Special Economic Zone. They also agreed moderately about more flights to Nakhon Phanom Province (Mean =3.19). The *qualitative results* pointed to tourism as the main factor for an increase in flights to Nakhon Phanom as a cultural destination rather than a special economic zone.

**Keywords:** An Increase in flights, special economic zone, Highway R 12, Great Mekong Subregion

### **1. Introduction**

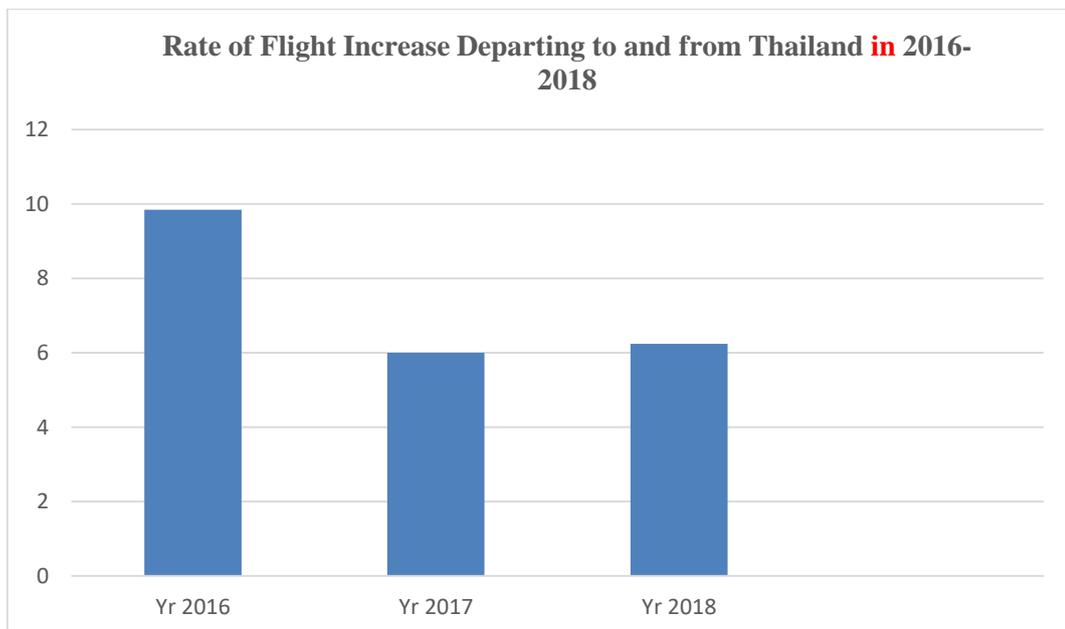
Aviation business in Thailand has been highly competitive as shown in the increasing number of flights departing to and from Thailand annually. As shown in Annual Report of Airport of Thailand Public (2019), the statistics at Suvarnabhumi Airport and Don Mueang International Airport indicated years and number of flights: 2015=707,362; 2016= 776, 992; 2017=707,362; 2018=874,999 (shown in Figure 1).

**Figure 1:** Number of Flights Departing to and from Thailand in 2015-2018  
 (Source: Annual Report of Airport of Thailand Plc., 2019)



The increasing trend of flights at Bangkok airports (Suvarnabhumi International Airport and Don Mueang International Airport) increased 9.84 % in 2016, 6 % in 2017 and 6.24 % in 2018 (shown in Figure 2).

**Figure 2:** Rate of Flight Increase Departing to and from Thailand in 2016-2018



The effect from the increase of the flights could be seen in the increased number of tourists coming to Thailand from the ASEAN countries in 2017 at 9,322,508, in 2018 at 10,284,050, and in 2019 at 9,322,508—showing the growth from 10.31 % down to 7.44 %. Most tourists from the ASEAN countries traveled to Thailand continuously from Malaysia, Lao PDR, Singapore and Vietnam (Ministry of Tourism and Sports, 2019). The statistics reported land transport (53.10 %) followed by air (44.10%) and by boat (2.10 %) (Tourism Economic Review, 2015: 38).

## 2. Background of the Study

Nakhon Phanom Province is located in the Northeastern part of Thailand that has both a domestic airport and Highway R 12 connected to Lao PDR, Vietnam and the Southern part of China. This highway is the safest and shortest way to China to transport all kinds of fruits, goods and household products, with lower costs than by air transports to Thailand, Lao PDR and Vietnam (Panichsan, A., 2019). Nakhon Phanom Province has been positioned as one of the 10 provinces in the Special Economic Zone (SEZ) for Phase 2 to become a logistics center of the Southern part of China (Office of Nakorn Phanom Province, 2018). The Board of Investment BOI (2015) has targeted 13 industries and 61 business activities for Phase 2 of the Special Economic Zone (SEZ) as follows;

- (1) Agro- industry, fisheries and related businesses
- (2) Ceramic products manufacturing
- (3) Textile, clothing, and leather manufacturing
- (4) Furniture manufacturing
- (5) Gems and jewelry manufacturing
- (6) Medical devices manufacturing
- (7) Automotive, machinery and parts manufacturing
- (8) Electronics and electrical appliances manufacturing
- (9) Plastics manufacturing
- (10) Pharmaceuticals manufacturing
- (11) Logistics businesses
- (12) Industrial zones or industrial estates
- (13) Businesses that support tourism

It was noted that Nakorn Phanom Province has been strategically located for highway transport that connects Thailand with Lao PDR, Vietnam, and the Southern part of China (R 12) and especially with the Third Thai–Lao Friendship Bridge built in 2001. The bridge has evidently improved the socioeconomic growth of both Thailand and Lao PDR. Meanwhile, the domestic airport in Nakhon Phanom Province has the capacity to serve up to 300,000 passengers per year. There are three flights a day by Low Cost Airline (LCA) named Thai Air Asia Airline that has replaced Nok Air since February of 2019. Nakorn Phanom Province has been well known as a tourist destination of historical heritage, arts, cultural festivals, and traditions of Buddhism, particularly Pra Thad Phanom Stupa and illuminated fire boat procession--locally called Lai Reua Fai. Since 2016, the fifteen-meter high sculpture of the Naga King Phaya Srisatta Nakarach of seven naga heads, with the overall weight of 9,000 kilograms has become a major tourist attraction. People came to pay respect and worship to the Naga King. It is interesting to investigate the need to increase flights to Nakorn Phanom Province as a tourist destination in parallel with the government's promotion for its special economic zone in Phase 2 as a logistics center to the Southern part of China.

### 3. Objective

This research aimed to study factors on travel behavior of visitors that affect an increase in flights to Nakhon Phanom Province.

### 4. Research Methodology

The researcher used the quantitative and qualitative research methods. This section reports the participants and research instruments used in the study.

#### 4.1 The Participants

The participants were 400, sampled by Krejcie and Morgan Table (Ritcharoon, P., 1997). Of 400 participants, 8 persons were key informants: 4 from the tourism sector and another 4 from the special economic zone in Phase 2 of Nakhon Phanom Province. The first person was selected purposefully and the rest by a snowball technique after Atkinson and Flint (2001). All participants were business owners in Nakhon Phanom Province, government officers from the Ministry of Tourism and Sports, the Customs Department, and the Local Administrative Office.

#### 4.2 The Research Instruments

The researcher constructed a questionnaire of which the content validity was by Index of Objective Congruence (IOC) between 0.67-1.00; these values were higher than 0.50 which was designed to be appropriate for data collection after Tiraganon (1993). In addition to the questionnaire to collect *quantitative* data, the researcher also used a set of questions for semi-structured interviews to collect *qualitative* data on travel behavior of visitors from the participants.

### 5. Data Collection and Data Analysis

The researcher collected quantitative data by distributing the questionnaire to 400 participants, and qualitative data by interviewing 8 key informants as mentioned in Section 4.1. Descriptive statistics was used for frequency, percentage, mean and standard deviation. Inferential statistics was used to test the three hypotheses and Stepwise Multiple Regression Analysis to study relation between independent variables assumed as two predictors, and dependent variables by means of stepwise (Wanichabancha, 2003 : 352-403). Content analysis was used with qualitative data (Mayring, 2000) and the triangulation technique to identify similarities and differences in the answers provided by the participants (Carter et al., 2014). It was expected that the analyzed quantitative and qualitative data could yield findings responsive to the identified research objective.

### 6. Research Results

Since the study focused on factors on travel behavior of visitors that affect an increase in flights to Nakhon Phanom Province, the researcher reported the results in three aspects : (1) travel behavior of visitors who came to Nakhon Panom, (2) factors affecting their travel choice or travel motives by cultural or investment interest in the economic zone, and (3) factors affecting an increase in flights to Nakhon Phanom Province—be it tourism or the economic zone.

#### 6.1 Travel Behavior of Visitors to Nakhon Phanom Province

The researcher presented the participants' variables obtained from the questionnaire to illustrate the picture of the visitors' travel behavior. Most of the participants or airline passengers at Nakorn Phanom Province were female (54%). More than half were in the age range of 20-39 years (55 %). They were business owners (31.3%) with a monthly income average between 10,001-30,000 baht (32.8%). More than half of these travelers were first-time visitors (35.8%) and enjoyed historic, art, cultural and traditional sightseeing (57.0%). Almost half visited Nakhon Phanom

Province during January and March (46.8%), and more than half spent 2-3 days per trip (52.3%). As for air ticket purchasing, almost half used airline website (41.8%), and the majority selected Thai Air Asia Airline (84.3%).

### 6.2 Factors Affecting Travel Choice or Travel Motives for Nakhon Phanom Province

From the participants' responses, it was found that the visitors tended to rely on marketing mix factors for their cultural or industrial interest, which in turn affected an increase in the number of flights to Nakhon Phanom Province. The results were as follows;

- (1) Most of the participants or airline passengers considered the marketing mix factors as determinants for their trips to see the sites of history, arts, culture and traditions in Nakhon Phanom Province at a high level (Mean=3.73). Other aspects were also rated high or moderately high: Physical Environment (Mean=3.89), Process (Mean=3.83), Personnel (Mean=3.80), Product (Mean =3.75), Place (Mean=3.66), Promotion (Mean =3.64), and Price (Mean=3.52).
- (2) The participants or airline passengers felt positive about the special economic zone at the highest level (Mean=4.21). Other aspects were also rated high or moderately high: Air Transport (Mean=4.28), Targeted Special Economic Area (Mean=4.27) and Investment Promotion (Mean=4.26). These aspects or factors appeared to affect the development trend of the special economic zone in Nakhon Phanom, as suggested in their moderately high rating of the current increase in flights to Nakhon Phanom Province (Mean=3.19).

### 6.3 Factors Affecting an Increase in Flights to Nakhon Phanom Province

The researcher examined the participants' responses for a direct impact on the increased number of flights to Nakhon Phanom Province and found the following.

- (1) Tourism appeared to play a major role in the participants' decision to visit Nakhon Phanom Province to see historic, art, cultural and traditional sites and activities. They evidently considered a marketing mix of Product, Price, Place, Promotion and Physical Environment. In particular, Personnel and Process had impact on an increase in flights to Nakorn Phanom Province, as hypothesized and tested with a positive result by the researcher.
- (2) The special economic zone appeared to play a relatively minor role in attracting travelers to the Province, as perceived by the participants in the study. However, they were in favor of the established special economic zone, the trade policy and promotion to connect Thailand and Khammouane District of Laos People's Democratic Republic with the third Thai-Laos Friendship Bridge in hope for economic effects trickled down to other adjacent provinces. The point on Nakorn Phanom Special Economic Zone as providing higher income for its population would help increase the number of flights to Nakhon Phanom Province was hypothesized and tested with a positive result by the researcher.

As seen in the results under 6.1-6.3, the researcher reported travel behavior of visitors to Nakhon Panom Province, factors affecting their travel choice, and (3) factors affecting an increase in flights to the Province. The participants responded to the interview questions regarding the three aspects in similar patterns; that is, the current attraction seemed to be on cultural or historical

tourism rather than for investment in the special economic zone. Most of the airline passengers visited the Province for the cultural festivals, such as the annual celebration of Pra Thad Phanom Stupa and illuminated boat procession on the river (locally known as Lai Reua Fai). They came to respect King of Nagas (Serpents) Phaya Srisatta Nakarach much revered by both Thai and Laotian people. The third Thai-Laos Friendship Bridge has been used as the main linkage between people on both sides of Mekhong River. Laotian people have also used this pathway to go to Vientiane as a safe and fast route. In developing Phase 2 of Nakhon Phanom Special Economic Zone into as a logistics center, the participants informed that it had impact on only a few hotels and restaurants but not yet to the stage of stimulating local investors to invest in these businesses. Some more local residents have not yet been well-aware of the special economic zone in Phase 2. To the participants, tourism has currently become a prominent factor that attracts tourists and helps increase the number of flights to the Province.

## 7. Discussion

As for *travel behavior of visitors*, most of the travelers to Nakhon Phanom Province were women running their own businesses, as reported in the document of Thailand Statistics Office (2015) and the study by Deeprasert, J. (2016). It was noted that more women than men by one percent in the last 10 years have been to this Province to update themselves with business opportunities that could attract investments in Phase 2 of the special economic zone. The Chairman of the Federation of Industries of Nakhon Phanom Province emphasized in the semi-structured interview with the researcher that people would gain benefits when they looked for good business opportunities to improve their living standards in the special economic zone.

The results of the study indicated clearly *factors affecting the visitors' travel choice or their travel motives* as currently stemming from cultural interest rather than the investment motive to do business in the economic zone. The travelers enjoyed annual celebration of Pra Thad Phanom Stupa and illuminated boat procession (locally known as Lai Reua Fai), as reported in the official document of National Statistics of Thailand (2018) that most of the visitors (80.60 %) traveling to Thailand in the year of 2016 for 1-4 times per year and spending 2-3 days per trip. Nakhon Phanom Province has also been known for 7 stupas traditionally referred to as good auspices for seven birthdates for people in need of blessing. In addition, Nakhon Phanom Office of the Tourism Authority of Thailand has promotionally extended cultural and historical tourism into the other two nearby provinces--Sakon Nakhon and Mukdahan under SANOK while including neighboring country tourism. The third Thai-Laos Friendship Bridge to Khammouane of Lao PDR enables people in these areas to visit medical centers for treatment or fly to Bangkok for quality services of hospitals, thus fitting in the long aspiration of Thailand to become a medical hub of ASEAN countries.

It was evident from the participants' responses and interview data that *factors affecting an increase in flights* to Nakhon Phanom tended to center on tourism rather than the special economic zone. The researcher received information from Torranin Nuanyai, the executive officer of Nakhon Phanom Province that inbound flights to Nakhon Phanom were at a full capacity with support from Sakon Nakhon in one hour's drive. Tanus Kerdsoambut, the officer in Business Development Department of Thai Air Asia however asserted that the increasing number of flights were related to the special economic zone policy, investment policy and purchasing power of people in the Province and its neighbors. He added that Thai Air Asia Airline from Sakon Nakhon

would be able to provide three flights a day, as stated in the Airport Cooperative Research Program (ACRP) Report 98 (2013: 13).

As mentioned earlier, Highway R 12 was important to Nakhon Phanom Province in connecting Thailand with Lao PDR through Thakhek, and with Vietnam through Hanoi and the Southern part of China. The highway saved about 823 kilometers as the shortest route to China. This was a good advantage in land transportation as pointed out earlier by Logistics Today (2019) that Highway R 12 linked well economy, trade, investment and tourism of Thailand, Lao PDR and Vietnam. Upon its completion of construction in 2021, Nakhon Phanom Province would become a center of logistics of Thailand and ASEAN countries as planned.

The findings of the study on travel behavior of visitors, factors affecting their travel choice or travel motives and those factors affecting an increase in flights to Nakhon Phanom were not beyond the researcher's expectation. Even though tourism was identified by the participants in the study as the current attraction perhaps moderately over the call of the special economic zone and its capacity as the logistics center in the Northeast Region of Thailand, the situation could change to both tourism and investment being positioned as two main attractions for the zone to benefit Thailand, Lao PDR, Vietnam and the Southern part of China. The Airport Cooperative Research Program (ACRP) Report 98 (2013: 12) emphasized improvement of airport infrastructure, accessibility, parking, safety, internet services and other facilities for shopping and hospitality products and services, for betterment of overall tourism and investment services.

## **8. Recommendations**

Based on the findings of the study, the researcher would like to recommend in the following areas which should deserve attention in business developments as well as research for cost-effective business operations. They are the following:

- (1) With the increased number of flights to Nakhon Phanom Province, Thai Air Asia Airline could consider cooperation with another local airline to cope with demands for quality services for airline passengers.
- (2) Tourism activities in Nakhon Phanom Province should be in congruence with the provincial tourism policy that includes the Less Visited Areas Tourism Policy of the Tourism Authority of Thailand. As the major sponsor, Thai Air Asia Airline could play a vital role in hosting cultural and historical activities in support of Nakhon Phanom Tourism and neighboring provinces.
- (3) Nakhon Phanom University could be the source of producing medical personnel to serve local people and those in nearby ASEAN countries. This would support medical tourism and medical education for ASEAN countries in a long term.
- (4) Since Highway R 12 is the main connecting route for Nakhon Phanom Province and neighboring areas, the local government could consider more linking roads to facilitate land transportation and trading, especially starting with the local areas in the Northeast of the country to justify the position of Nakhon Phanom Province as a gateway to Great Mekong Subregion (GMS).

## 9. The Author

Jirawan Deeprasert, Ed.D., is currently Chair of the Ph.D. Program in Management at Rattanakosin International College of Creative Entrepreneurship (RICE), Rajamangala University of Technology Rattanakosin (RMUTR), Nakhom Pathom, Thailand. Her research interest and research projects are in the areas of creative educational management, and major issues in tourism, hospitality and the business operations in the creative service industry.

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