THE STUDY OF THAI SELF- DRIVING TOURISTS' MOTIVATION, TRAVEL PLANNING BEHAVIOR AND SPATIAL FACTOR EFFECT ON PLANNING BEHAVIOR AND EXPERIENCE FOR TOURISM LOGISTICS DEVELOPMENT: A CASE STUDY OF THE NORTHERN THAILAND ROUTES

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ABSTRACT

This study explored self-drive tourists' motivations, travel planning behavior, and investigated relationship of the spatial factors of self-drive tourism that influenced their planning behavior and experience. The samples were Thai self-drive tourists during their travel on Thailand's northern route. The purpose was to provide recommendations on how to develop and improve the tourism logistics of the Northern Thailand touring routes to support Thailand's self-drive tourism market. The study employed quantitative approach using self-administrated questionnaire with a total of 222 self-drive tourists. The analysis adopted the statistics including descriptive analysis, mean and standard deviation to rank importance level of the respondents' motivations, and degree of attractiveness of spatial factors. Exploratory Factor Analysis (EFA) was also used to identify the relationship between the observed variables, whereas Path Analysis was used for explaining the relationship between spatial factors and planning behavior and experience. The findings revealed spending time together with family and friends, privacy, car space sharing, freedom in moving at own pace were the most important motivations of self- driving tourists. The result of travel planning behavior was grouped into pre-trip and in situ trip planning for the explanation. The socio-cultural character was perceived as the most attractive character, followed by the natural one. The Path Analysis revealed that facilities and infrastructures along the route showed significant relationship with planning behavior

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and driving experience, whereas spending and recreational points and socio-cultural character had significant relationship with driving experience. Some recommendations involving the tourism physical and information logistics flow development for the Northern Thailand touring routes were also contributed in this study.

Keywords: Northern Thailand route, self-drive tourism, tourism logistics development.

INTRODUCTION

Self-drive tourism has been considered a mass tourism market in the domestic tourism system of Thailand. Thailand's domestic tourism has therefore mainly based on self-driving. Self-drive tourism or drive tourism, the term was originated with a tourism model in the context of Australia (Carson, Waller & Scott, Online, 2002; Prideaux & Carson, 2003, Prideaux, McClymont & Cassidy, Online, 2005; Howat, Brown & March, Online, 2007; Holyoak & Carson, Online, 2009). Previous studies were carried out in developed countries such as the US or in other developing countries. Prideaux and Carson (2003) defined "drive tourism" as the "tourism that centers on travelling from an origin point to a destination by car that is either privately owned or rented, and engaging in tourism- related activities during the journey". Drive tourism can increase travelers' opportunities to drive out of the main highway to access other more remote areas. It also has a close relationship with how tourism in rural remote areas, which are reachable most conveniently by car, can be developed. This sector has played a dramatic role as the economic driving force and in motivating tourism development especially in smaller and secondary towns and rural areas, and in inducing income distribution. World Tourism Organization (WTO) reported that since 1998 international tourism has tremendously been shaped by air and land transport development and automobile industry. Self-drive travel accounted for 42 per cent of transport choices and was more popular in Europe, the Middle East and Australia (Prideaux & Carson, 2003). Having car ownership in Thailand continued to reach at rapid level, self-driving tour has gained high popularity among Thai visitors. Moreover, tour operators and travel agents are currently facing the fact that Thai tourists have increasingly traveled by themselves, do not need much assistance and buy less service from travel companies. A report disclosed 85 percent representing tourists' self-travel planning

and another 15 percent buying tour operator and travel agent services. This has been due to the advancement of Internet and information technology enabling consumers to book travel services directly through online system, and reach destinations by private or rental vehicles. Google Maps and GPS for example also enhance capabilities of self-drive tourists to plan and navigate their travel even en route by disseminating on-the-move information. Tourism Authority of Thailand (TAT) has also launched the self-drive touring campaign to promote domestic travel during green season and created different themed routes aiming to boosting the domestic travel market and responding new generation travelers' lifestyle and variety of demands. Self-drive touring routes are usually designed in a circuit route starting at the main cities and then returning back to the area from which it started (Hennessey et al., Online, 2008). For Thailand, the main cities in each region of Thailand include Bangkok, Chiang Mai, Nakorn Ratchasima and Phuket. Thailand's domestic self-drive tourism nowadays especially in winter has been dominated by the routes in the northern Thailand. Length of stay for each holiday among Thai tourists is around 2-5 days. They usually make a short trip during the main holidays which include Songkran Holiday in April (Thai New Year) and New Year in December. Some other long weekends based on Thailand national holidays are spent with traveling to the provinces nearby. This self-drive segment presents its growth in accordance with higher capability to own a car and other socio-cultural and economic factors that mobilize this growth. However, what has not been known is the traveling behavior of this growing market particularly of Thailand. Literature from the past has demonstrated limited reviews. There still is a wide space in tourism literature for filling up studies of logistics development of touring routes and destinations particularly for this market. This study therefore explored Thai self-drive tourists' motivations, travel planning behavior, and investigated relationship of the spatial factors of self-drive tourism that influenced their planning behavior and experience. The result was useful for providing recommendations on how to develop and improve the tourism logistics of the Northern Thailand touring routes to support self-drive tourism of Thailand. This was also in response to Thailand's National Tourism Development Plan that focuses on development of logistics and facilitations to support tourism and transportation networks connecting the neighboring countries. The

findings of this study also contributed to supports of any future spatial development projects for areas of potentials for increasing their higher carrying capacity.

RESEARCH OBJECTIVES

This study explored self-drive tourists' motivations, travel planning behavior, and investigated relationship of the spatial factors of self- drive tourism that influenced their planning behavior and experience.

SCOPE OF RESEARCH

The research was scoped to study motivations, travel planning behavior and relationship of the spatial factors of tourists that influenced planning behavior and experience, by using self-driving respondents during their travel. The study area was the Northern routes of Thailand.

RESEARCH METHODOLOGY

This study employed the quantitative approach using self-administrated questionnaire with a total of 222 self-drive tourists who were traveling to the North of Thailand. Mean and standard deviation was used for ranking importance level of the respondents' motivations. Exploratory Factor Analysis (EFA) was also performed to identify relationship between the observed variables of motivation and spatial factors. As well, Path Analysis was used for investigating the relationship of spatial factors on planning behavior and experience.

FINDINGS

The findings revealed all motivation factors received high mean score. Yet, the reason of spending time together within family and with friends, privacy, car space sharing reason, freedom in moving at their own pace were the most important motivations of self- driving tourists, as shown in Table 1.

Table 1. Mean and Standard Deviation of Self-Drive Tourists' Motivation

Motivation	$\overline{X}$	*SD*	Level of Impertance
Convenience of travel	4.14	0.765	High
Comfort	4.16	0.747	High
Safety	4.10	0.868	High
Privacy	4.24	0.810	Highest
Economy reason	3.98	0.853	High
Fun	4.12	0.787	High
Research and relax	4.04	0.839	High
Flexibility of trip planning (i.e. customizing itineraries)	4.00	0.832	High
Freedom in moving at your own pace	4.21	0.814	Highest
Car space sharing reason	4.24	0.804	Highest
Reason of spending time together	4.32	0.762	Highest
Average mean	**4.14**	**0.80**	**High**

Table 2 exhibits Factor Analysis of all 11 self-drive tourist motivation factors. The result of the Exploratory Factor Analysis (EFA) showed that fun, release and relax, flexibility of trip planning, freedom in moving at their own pace, car space sharing reason, and reason of spending time together shared a relationship in group number 1, whereas convenience, comfort, safety, privacy and economy shared a relationship in group number 2. The analysis also showed that the reason of privacy is into both groups.

Table 2. Factor Analysis of Self-Drive Tourists' Motivation

Rotated Component Matrix[a]

	Component	
	1	2
Convenience of travel		.790
Comfort		.801
Safety		.807
Privacy	.502	.588
Economy reason		.622
Fun	.712	
Research and relax	.757	
Flexibility of trip planning (i.e. customizing itineraries)	.747	
Freedom in moving at your own pace	.800	
Car space sharing reason	.694	
Reason of spending time together	.738	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization

In regards to travel planning behavior, the study result showed the following behaviors during pre-trip planning: (1) vehicle check; (2) pre-trip route study; (3) reading information of places to visit; (4) indicating pre- decided places to visit; (5) adopting digital media and devices for trip planning and decision making; (6) booking accommodation in prior to travel; (7) searching for tourist places with activities offered; (8) pre-indicating driver for the trip (9) indicating number of trip members; (10) indicating no specific pre-decided points to stop en route; and (11) pre-indicating male driver for the trip. The behaviors reported pattern during the self-drive trip included: (1) mostly choosing gas stations and souvenir shops as a rest point; (2) adopting digital media and devices for trip planning and decision making en route; (3) buying souvenirs in all or almost all trips; (4) avoiding driving through town; (5) searching for tourist places with activities offered; (6) visiting pre-decided places as planned; (7) rotating driving role during trip but mainly male; and (8) immediate change of drive route. The

analysis of attractiveness degree of the factors (main factors included natural character, socio-cultural character, touring routes, spending and recreation points, and tourist facilities and infrastructures) was carried out by use of mean and standard deviation. The study revealed that the average mean of all 5 categories was 3.96, indicating 'high' degree of attractiveness. The socio-cultural character showed the highest mean, 4.17, with architecture, art, history and archeological sites receiving a prominently high mean. The factor that followed was the natural character, 4.01, with national parks, overall natural beauty and mountains receiving a significantly high mean. The most attractive routes for driving was Lampang-Lamphun- Chiang Mai, whereas the least was Sukhothai-Kampaengphet. Additionally, the Factor Analysis was performed and it set up the observed variables into 7 significant new groups as shown in Table 3. Some factors not classified into any group such as rurality, digital information source, accommodation, and food and drink were not mentioned in the Table. The analysis provided new perspective of categorization for the observed variables, which could be based on the concept of tourism logistics.

Table 3. Factor Analysis of Spatial Factors

Group 1: Information factor	Group 2: Ancillary activities and services	Group 3: Emergency factor	Group 4: Natural attribute factor	Group 5: Art and historical attribute factor	Group 6: Cultural attribute factor	Group 7: Routes mostly used
Road	Souvenir stop	Money point	Holistic beauty	Architecture	Festival	Kamphaeng-phet-Tak-Lampang
Traffic	Rest stop	Hospital	Climate	Art	Food	Lampang-Lamphun-Chiang Mai
Directional sign	Activity stop	Gas station	River	History	Belief	Lampang-Phayao-Chiang Rai
Community sign	Mall	NGV	Mountain	Archeology	Local friendliness	Chiang Mai-Chiang Rai
Attraction sign	Park	Police station	National Park		Urbanism	

Table 3. (continued)

Group 1: Information factor	Group 2: Ancillary activities and services	Group 3: Emergency factor	Group 4: Natural attribute factor	Group 5: Art and historical attribute factor	Group 6: Cultural attribute factor	Group 7: Routes mostly used
Sign by attraction types	Market	Garage	Agricultural farms			
Information board						
Visitor center						

Finally, the Path Analysis was used to investigate relationship of the spatial factors of self-drive tourism that influenced planning behavior and experience. As exhibited in Table 4, this could be explained that only tourist facilities and infrastructures (R facility) was a significant relationship with planning behavior while the rest showed no significant relationship. Moreover, the spatial factors with significant relationship with tourists' driving experience included tourist facilities and infrastructures (R facility), spending and recreational points (R recreate), and socio-cultural character (R culture). Figure 1 visualized this result; all factors had direct relationship on planning behavior and experience.

Table 4. Standardized Regression Weights (Group number 1-Default model)

			Estimate	*P*
Plan	<---	Rnature	.124	.138
Experience	<---	Rnature	.120	.055
Plan	<---	Rculture	.010	.911
Experience	<---	Rculture	.148	.022
Plan	<---	Rroute	.015	.849
Experience	<---	Rroute	.054	.373
Plan	<---	Rrecreate	.004	.969
Experience	<---	Rrecreate	.188	.010
Plan	<---	Rfacility	-.260	.015
Experience	<---	Rfacility	.320	***

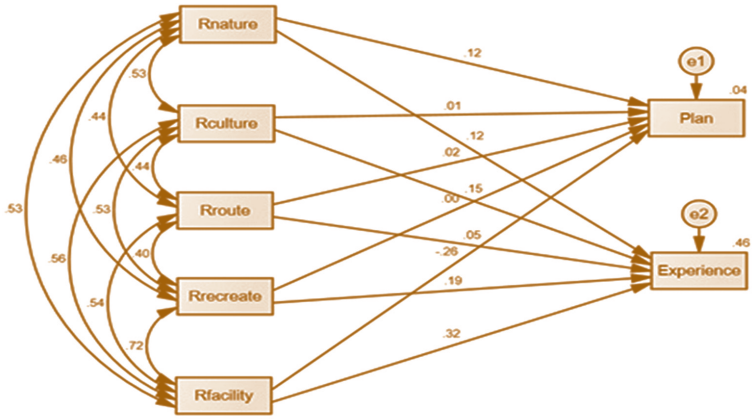

Figure 1. Path Modelling

The respondents' satisfaction on the self-driving experiences as shown in Table 5 denoted that the top 5 self-drive experience with high satisfaction included: (1) quality of time spent with family and friends or trip members; (2) overall quality of tourist attractions; (3) attachment and personal interpretation to tourist attractions visited and activities engaged; (4) interpretation at tourist attractions i.e. via signage, staff presentation and designs/decorations of places; and (5) self-drive facilitation.

Table 5. Satisfaction towards Self-Driving Experience

Self-Drive Experience	$\overline{X}$	*SD*	Level of Satisfaction
Easiness and flexibility of route circuit travel planning	4.01	0.743	High
Time management of traveling	4.00	0.749	High
Self- drive facilitation	4.03	0.772	High
Trip expenditure	3.99	0.740	High
Tourist services at accommodation	3.93	0.807	High
Tourist services at restaurants	3.91	0.799	High
Tourist services at tourist attractions	3.93	0.773	High
Attachment and personal interpretation to tourist attractions visited and activities engaged	4.09	0.764	High

Table 5. (continued)

Self-Drive Experience	$\overline{X}$	*SD*	Level of Satisfaction
Interpretation at tourist attractions i.e. via signage, staff presentation and designs/ decorations of places	4.05	0.780	High
Quality of time spent with family/ friends or trip members	4.18	0.743	High
Overall quality of tourist attractions	4.14	0.755	High
Quality of activities at tourist attractions	4.06	0.770	High
Effect of quality of touring routes on self- driving experience	4.00	0.782	High
Quality of souvenirs	3.91	0.734	High
Fun of self- driving	4.09	0.787	High
Average satisfaction of self- drive travel	**4.02**	**0.767**	**High**

Lastly, the respondents' first three future route choices included Nakornsawan-Phichit- Phitsanulok, Chiang Mai-Chiang Rai, and Lampang-Lamphun-Chiang Mai, whereas Kampaengphet-Tak- Lampang and Sukhothai-Kampaengphet portrayed the image of transit town and lack of diversity in terms of tourist attractions.

DISCUSSION AND RECOMMENDATION

The behavioral pattern of self-drive market according to this study reflected the influence of the two logistics flows: physical and information flows. The information flow was explained by the adoption of digital media and devices for travel planning and decision making behavior such as searching for tourist attractions with activities offered, making rest stop at gas stations and at souvenir shops, and immediate changes of routes traveled. A previous study also confirmed that there was a significant relationship between information service quality and logistics service performance (Liang, Brian & Peszynski, Online, n.d.). The study linked the tourism and service logistics performance with service quality of tourism suppliers across different

sectors such as accommodation and tourism information and booking providers and investigated how these influenced tourists' satisfaction and loyalty. It emphasized the fact that development of information technology systems as part of tourism logistics service improved tourism production supply chain especially in terms of efficiency and flexibility, and thus enhanced overall tourists' satisfaction and loyalty. Furthermore, the result pointed out significant relationship between facilities along the northern route and self-drivers' planning behavior and driving experience; this contributed to further consideration of facility development to improve and enhance touring experience of this market. The result that natural character showed no significant relationship with tourists' planning behavior and experience could be explained by the fact that the northern route is generally represented by natural attractions as its image, even on the transit or secondary towns. Contrarily, socio-cultural character on the route showed significant relationship with tourists' experience; this provided implication for further development of this tourism character along the route in particular of secondary towns. The fact that most self-driving tourists avoided driving through community downtowns but rather headed to destinations infers the question of how to attract them to visit communities along the way rather than to pass by or use bypass. This implies route development significance in the segment of tourism and support facilities offering connectivity between primary and secondary destinations, which influences tourists' movement and improves regional tourist destination attractiveness (Frias, Cabral & Costa, 2015). In urban tourism and transport, generally it was assumed that most people or tourists took the shortest or most-efficient route from their point of origin to destination (Meyer & Miller, 1984, cited in Lew & Mckercher, 2006). According to Lew and Mckercher (2006), destination characters and tourist variables such as transportation accessibility, tourist characteristics and destination knowledge and emotional value place impacts on intra-destination movement of tourist transport in the aspects of, such as degree of freedom or restriction of movement, willingness to wander or explore, depth of participation in an activity, emotional attachment to destination and relative appeal of attractions. This conveys that development of nodes, landmarks and activities along the way (both on the way in and the way out in the touring route) facilitates and motivates tourists to stopover rather than to pass.

Other recommendations involving the tourism physical and information logistics flow development for the northern touring routes of Thailand were made. The findings implicate needs and possibility to develop theme route, which will facilitate self- driving tourists and enrich special characters and uniqueness of the touring routes, leading to future destination and route branding. Moreover, diversification of tourist sites, landscape improvement and development of recreational points and spaces to increase tourists' access to recreational opportunities especially for long-distance routes, can be considered. These can contribute to solving logistics problem of time, promoting en route visitations, reducing tourist concentration at main tourist sites, and linking people, places and nature. Tourism information logistics development should focus on development of site and route information designed on self-drive route maps both in print-out and digital format, equitable in cars, with provision of channels accessing local attraction and accommodation entrepreneurs. The study results also imply future development for water reservoir attraction type and rural environment preservation along the routes, which were shown less attractive based on the findings.

REFERENCES

Carson, Dean, Waller, Iain, & Scott, Noel (Eds.). (2002). ***Drive tourism: Up the wall and around the bend*** (Online). Available: http://www.savannahway.com.au/wp-content/uploads/2015/10/crtr-drive 2002.pdf [2018, November 19].

Frias, Armindo, Cabral, João, & Costa, Álvaro. (2015). Modeling movement of tourists: Tools and application in São Miguel Island, Portugal. ***Asian Journal of Business and Management, 3***(6), pp. 440-448.

Hennessey, Sean, et al. (2008). ***The importance of scenic drive tourism: An exploratory study*** (Online). Available: http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID1617377_code136228.pdf? abstractid=1617377&mirid=1 [2018, November 19].

Holyoak, Nicholas, & Carson, Dean. (2009). ***Modelling self-drive tourist travel patterns in desert Australia*** (Online). Available: http://atrf.info/papers/2009/2009_Holyoak_Carson.pdf [2018, November 19].

Howat, Gary, Brown, Graham, & March, Heather. (2007). ***Self-drive tourism: Travellers to South Australia's Limestone Coast region*** (Online). Available: http://sustain.pata.org/ wp-content/uploads/2015/02/Howat_SelfDriveTourismSA.pdf [2018, November 19].

Lew, Alan, & McKercher, Bob. (2006). Modeling tourist movements: A local destination analysis. ***Annals of Tourism Research, 33***(2), pp. 403-423.

Liang, Hui-chung, Brian, Corbitt, & Peszynski, Konrad. (n.d.). ***Impacts of logistics service performance through IT on overall tourist satisfaction and loyalty*** (Online). Available: https://pdfs.semanticscholar.org/0bde/bf1633f3720ad51a6e59150ccb6c188d9650.pdf [2019, May 6].

Prideaux, Bruce, & Carson, Dean. (2003). A framework for increasing understanding of self-drive tourism markets. ***Journal of Vacation Marketing, 9***(4), pp. 307-313.

Prideaux, Bruce, McClymont, Hoda, & Cassidy, Frances. (2005). ***Promoting to the drive tourists: An exploratory Queensland study*** (Online). Available: http://eprints.usq.edu.au/6847/2/Prideaux_McClymont_Cassidy_AV.pdf [2018, November 19].