The Causal Relationship of Tourism Logistics Management Influencing Tourists' Loyalty in Phra Nakhon Si Ayutthaya Province

Suphalak Sriwilai

Faculty of Management Science, Phranakhon Si Ayutthaya Rajabhat University

E-mail: suphalak@aru.ac.th

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Abstract

The objectives of this article were to 1) study the factors of tourism logistics management that influence tourists' loyalty in Phra Nakhon Si Ayutthaya Province, and 2) create a causal relationship model of tourism management logistics influencing tourists' loyalty in Phra Nakhon Si Ayutthaya Province. The population of the study was Thai tourists who visited Phra Nakhon Si Ayutthaya Province. 360 Thai tourists were selected as the sample size by using a convenient sampling method. Questionnaires were also used for collecting data. A statistical program was used for data analysis, including inferential statistics, confirmatory factor analysis (CFA), and structural equation modeling (SEM). The results revealed that the factors of tourism logistics management consist of five aspects: 1. physical flow; 2. information flow; 3. financial flow; 4. utility flow; and 5. sustainable flow. And 2) Tourism logistics management had a direct positive influence on tourists' satisfaction, and tourists' satisfaction directly influenced tourists' loyalty. The findings indicated that the more tourists' loyalty influenced, the more likely they were to return for future trips or be willing to spend more money to travel back to the same destination. Alternatively, it is also advisable to recommend the tourist destination to people around them. Therefore, the process of promoting tourists' loyalty to tourist destinations with deep understanding is needed. Apart from that, the relevant government agencies involved the tourism industry should use this causal relationship model of tourism logistics management to influence tourists' loyalty in Phra Nakhon Si Ayutthaya Province to enhance and increase the competitive advantages for the tourism industry.

Keywords: Tourism Logistics Management; Satisfaction; Loyalty

Introduction

Over the past decades, tourism has continued to grow, and the diversity of tourism has also increased. Tourism is the fastest-growing sector and key to socio-economic progress, closely tied to new destination development. Tourism is the primary source of income for developing countries due to the high competition among tourist destinations worldwide (UNWTO, 2019). This growth comes together with the diversity and high competition among tourism destinations that have spread across the world (UNWTO, 2019). Tourism is very important to Thailand's economy. Tourism income for both Thais and foreigners played a significant role, as it was 17% of Thailand's GDP in the first two quarters of 2019. This is considered the factor that contributes to Thailand's strong financial position. In addition, Thailand's tourism sector had high potential, as reflected in the World Economic Forum 2019: the Tourism Competitiveness Index of Thailand was ranked 31 out of 140 countries around the world and was ranked third in ASEAN after Singapore and Malaysia (Surawatthananon, 2019). Thailand is a delightful destination for tourists around the world.

Phra Nakhon Si Ayutthaya Province has many interesting tourist attractions, such as ancient sites, religious sites, antiques, monuments, historical attractions, arts and culture, and traditions and customs. In addition, Phra Nakhon Si Ayutthaya Province was considered a World Cultural Heritage Site by the United Nations Educational, Scientific, and Cultural Organization on December 13, 1991 (UNESCO, 2020). As a result, Phra Nakhon Si Ayutthaya Province is a city with both Thai and foreign tourists who come to visit the province all year round. Particularly, historical and cultural tourism is another style of tourism that attracts both Thais and foreigners. There were 8.2 million tourists in Phra Nakhon Si Ayutthaya Province which increased by 7.4% from the previous year, and total tourism revenue was up to 18,700 million baht which increased by 10.75% from the previous year. (Pra Nakhon Si Ayutthaya Office of Tourism and Sports, 2019) The number of tourists has continuously increased. Additionally, many tourists come to visit Phra Nakhon Si Ayutthaya on holidays because it is close to Bangkok. It affected the infrastructure system that was insufficient to support tourism within the province. As a result, it caused traffic problems at certain times and further resulted in the tourists that could not effectively follow their plans to travel in the province. This problem may affect the income and economic value if there is no proper management of the infrastructure and no effective logistics management to support tourism services. To enhance tourism

services, it is necessary to consider tourism logistics management including infrastructure, information, and facilities; for example, the development of tourism infrastructure to be flexible and increase the variety of routes to be selected, tourist information providing, money transactions, and payment, or electronic convenience services to support both Thai and foreign tourists who come to visit Phra Nakhon Si Ayutthaya Province. The development can impress tourists, make them want to visit the province again, and further influence tourists' loyalty. Loyalty is the intentional behavior of tourists that happens in the future after visiting and being impressed by the visiting place, and loyalty is then presented by the intention to revisit, suggest, and recommend the place to others. Loyalty also includes the intention to pay more and the awareness to conserve the place. Tourists' loyalty will lead to increased income for Phra Nakhon Si Ayutthaya Province and the involved businesses. In addition, tourists' loyalty influences the stability and sustainability of tourism. (Oliver, 2010)

Therefore, this study focused on the tourism logistics management of Phra Nakhon Si Ayutthaya Province by studying tourism logistics management factors that influenced tourists' loyalty in Phra Nakhon Si Ayutthaya province and creating a causal relationship model of tourism logistics management that influenced tourists' loyalty in visiting Phra Nakhon Si Ayutthaya province to investigate the relationship with the revisiting of tourists. The results of the study can be used as a guideline to develop the components of tourism logistics in Phra Nakhon Si Ayutthaya Province to enhance tourists' satisfaction and loyalty, which leads to sustainable tourism in Phra Nakhon Si Ayutthaya Province.

Objectives

1. To study the factors of tourism logistics management that influence tourists' loyalty in Phra Nakhon Si Ayutthaya Province.

2. To create a causal relationship model of tourism management logistics influencing tourists' loyalty in Phra Nakhon Si Ayutthaya Province.

Literature Reviews

Tourism Logistics Management

At present, logistics has transformed into the tourism business system. Each country in different regions has expanded its tourism industry in a globalized manner. Therefore, tourism

logistics management refers to the process of supporting tourists to get to their destination well and happily. It also focuses on the satisfaction of the tourists and relates to the activities that the tourists directly experience in their own ways. Tourism logistics management needs the application of the science of logistics to manage the movement, flow, and connection of products and services that are related to tourism to be efficient in terms of time and cost. It also creates the highest level of satisfaction for consumers, which is the key to increasing and supporting the competitive potential of tourism. Aisanon (2016) mentioned that tourism logistics is the coordination between activities to enhance the flow of tourists (physical flow) from the start to the destination without any failures, and it must provide the highest satisfaction for the tourists. Piboonrungroj (2010) proposed that the components of tourism logistics management consisted of 5 components: 1) Physical Flow refers to the development of roads and routes to access tourist attractions with a standard public transport system to support tourists to easily visit the attractions conveniently, fast and safe; 2) Information Flow refers to the development of the website to be beautiful and attractive with full information that can be reached online by tourists anytime, anywhere; 3) Financial Flow refers to the facilitating of money flow to facilitate tourists in their transaction or support online payment (i.e. mobile banking); 4) Utility Flow refers to the development of infrastructure to facilitate tourists such as having enough public toilets, enhancing phone signal capacity, the internet, WIFI that are available in distant tourist destinations; 5) Sustainable Flow refers to the creating of tourists' awareness in sustainable tourism by providing enough dumping points in tourist areas, sorting waste before disposing, and implementing waste treatment.

Satisfaction in Tourism

Satisfaction refers to the feeling of pleasure or disappointment from the comparison of the results or the perception of products with the customers' expectations. If the results of products and services are better than customers' expectations, they will be satisfied. On the contrary, if the results of the products are worse than expectations, the customer will be dissatisfied (Hudson, 2009). A customer's satisfaction is the feeling that is presented after purchasing or receiving products and services. That feeling leads to the intention to return to use the products and services repeatedly. In general, the better the results the customers receive, the higher their satisfaction (Manjing, 2003). Satisfaction was considered a very appropriate indicator of the level of attitudes and feelings customers had about their experience with the organization (Hill & Allen, 2007). Satisfaction plays a huge role in tourism as it leads to the recommendation of tourism products (i.e. word–of–mouth) to other people including relatives, cousins, friends, etc. (Horner & Swarbrooke, 2007). Satisfaction

is an important tool for evaluating tourists' experiences, as it can indicate how tourists like or are satisfied with the tourist attraction (Huang & Chiu, 2006). If the tourists have positive feelings, they have higher chances of revisiting the tourist attraction, and it is possible that they will suggest others visit the place (Oppermann, 2000).

Tourists' Loyalty

Tourists' loyalty refers to an intentional behavior that occurs after traveling and being impressed. It starts with having a positive attitude, which comes from the value awareness that is gained from traveling. Tourists' loyalty is an accumulation of experiences until it becomes an impression and bond with that place. The bond that occurs from loyalty will always happen with tourists, as long as they are aware of the value of their travel and as long as they are impressed by the attraction (Oliver, 2010). Loyalty influences revisiting and recommendations to others (Grönroos, 2007). The components of tourists' loyalty were described in four aspects (Zeithaml et al., 2006; Oliver; 2010). 1) Revisiting represents the bond that tourists have with the tourist attraction. It is the intention to come back to the tourist attraction again in the future. It can be caused by the impression of the image of tourism or getting the awareness of the value of this traveling. 2) Recommendation refers to the recommendation to friends or relatives to travel to the attraction including sharing experiences with positive impressions such as attractive objects, good facilities, and good service quality in the tourist attractions. 3) The willingness to pay more refers to the feeling that tourists do not hesitate to pay when the price of the products or services is higher such as the higher price of products and services and the higher cost of transportation and traveling to the destination. Tourists who have loyalty also have the willingness to pay more to get to their destination. 4) Conservation refers to the feeling of tourists who want to make the attraction that they are impressed with and they feel it is valuable to be conserved. They also need to help monitor and maintain the resources and the environment around the tourist attractions to avoid being damaged.

Conceptual Framework

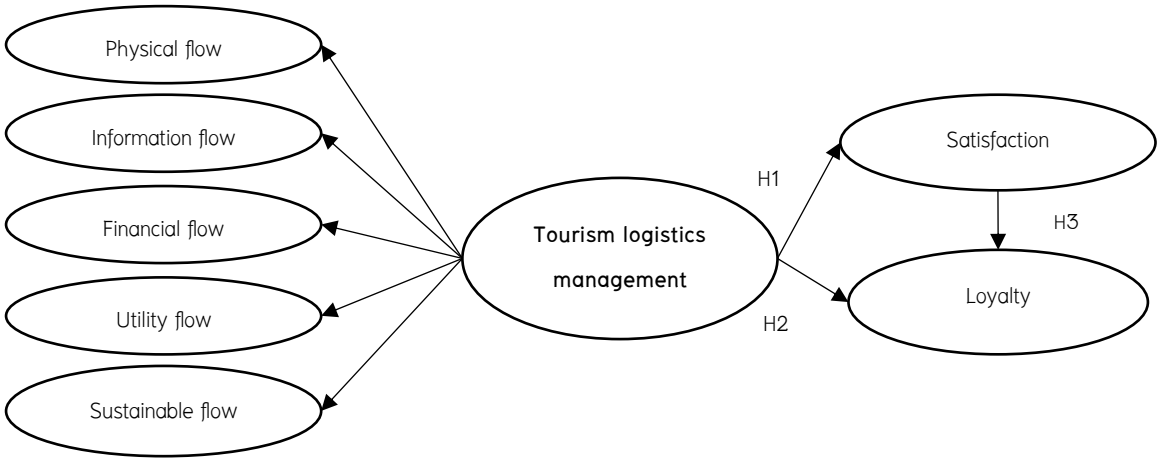

Figure 1. Research Framework

Previously, many scholars have reviewed the literature on tourism logistics management, tourists' satisfaction, and loyalty to tourist attractions (Kim et al., 2013; Sangpikul, 2018). However, the explicit relationships among tourism logistics management, tourist satisfaction, and tourist loyalty have not been established. Only some of these relationships had been investigated separately in the previous studies. Therefore, this research was conducted by integrating tourism logistics management, tourist' satisfaction, and tourist loyalty theories.

Hypothesis

H1: Tourism logistics management factors influence tourists' satisfaction in in Phra Nakhon Si Ayutthaya Province.

H2: Tourism logistics management factor influences tourists' loyalty in Phra Nakhon Si Ayutthaya Province.

H3: Tourists' satisfaction factor influences tourists' loyalty in Phra Nakhon Si Ayutthaya Province.

Methodology

Research Method

This research is quantitative research. The research aimed to investigate the causal relationships and explain the relationships between independent and dependent variables in order to establish a causal relationship model of tourism logistics management influencing tourist satisfaction in Phra Nakhon Si Ayutthaya. This model is consistent with relevant theories and empirical research findings.

Population and Sample

The population of this study was 7,600,276 tourists visiting Phra Nakhon Si Ayutthaya Province (Ministry of Tourism & Sports, 2023). 360 of them were selected as the sample size by using of convenience sampling technique during April to September 2022.

Research Instruments

After creating a conceptual framework, a primary questionnaire was developed to collect data, including measurement items. The questionnaire was then refined based on feedback from experts. Next, the Index of Item–Objective congruence (IOC) was conducted by three experts. The results showed that the IOC ranged from 0.60 to 1.00 for all items, indicating good congruence. To assess reliability, coefficient Alpha analysis was used and the score was found to be 0.93, which is higher than the recommended 0.70 for a reliable score (Peterson & Kim, 2013).

Data Collection

The questionnaires were collected from 360 tourists who visited Phra Nakhon Si Ayutthaya Province. They were selected by using a convenient sampling technique. The sample size was based on the number of variables studied in proportion to the number of parameters, using a ratio of 5–10 samples per parameter (Kline, 2023). There were 37 parameters and 360 subjects; hence, the sample size was appropriate and sufficient to be used for the data analysis.

The objectives of the study and how to respond to the questionnaire were explained in the questionnaire. The data were coded and analyzed.

Data Analysis

The analyses to prove the hypotheses of the study consisted of a Structure Equation Modeling (SEM) by using a package program to examine the parameters. The Structure Equation Modeling is able to analyze several latent variables together. It is able to identify the causal

relationships among variables at the same time to confirm the hypotheses and accept or reject the relationships among those variables (Raengsungnoen, 2011).

Results

Confirmatory Factor Analysis

The components of tourism logistics management that were analyzed consisted of physical flow, information flow, financial flow, utility flow, sustainability flow, tourists' satisfaction, and tourist' loyalty. The model was consistent with the empirical data. The factors indexes were analyzed, and the results showed that Normed chi–square (CMIN/DF) ≤ 5.00 (Tabachnick & Fidell, 2013) Comparative Fit Index (CFI) ≥ 0.90 (Schumacher & Lomax, 2016) Incremental fit index (IFI) ≥ 0.90 (Schumacher & Lomax, 2016) Tucker–Lewis Index (TLI) ≥ 0.90 (Bagozzi & Yi, 1988) Root mean square error of approximation (RMSEA) 0.05–0.08 (Schumacker & Lomax, 2016).

The results of the confirmatory factor analysis after revising the model revealed that the index and the empirical data were consistent (Chi–square = 1127.689, df = 342, CMIN/DF = 3.297, CFI = 0.917, IFI = 0.918, TLI = 0.902, RMSEA = 0.080). All indexes passed the criteria; hence, the model is consistent with the empirical data. The adjusted model was presented in Figure 2, and the results of the confirmatory factor analysis were presented in Table 1.

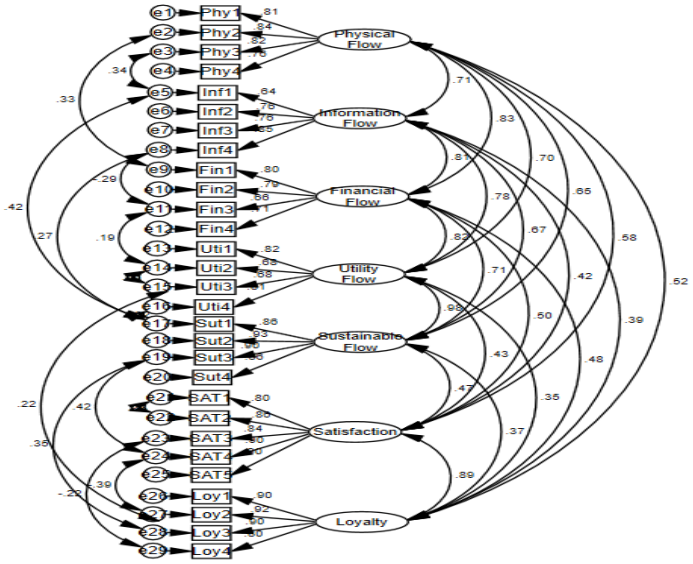

Figure 2. Tourism logistics management Components: Physical Flow, Information Flow, Financial Flow, Utility Flow, Sustainability Flow, Tourists' Satisfaction, and Tourists' Loyalty.

Note: Chi–square = 1127.689, df = 342, CMIN/DF = 3.297, CFI = 0.917, IFI = 0.918, TLI = 0.902, RMSEA = 0.080

Table 1 The results of the goodness of fit confirmatory factor analysis

Goodness–of–fit measures	Suggested criteria	Final Model
Chi square (CMIN)		1127.689
Degree of Freedom (DF)		342
Chi square/ Degree of Freedom (CMIN/DF)	≤ 5.00	3.297
Comparative fit index (CFI)	≥ 0.90	0.917
Incremental fit index (IFI)	≥ 0.90	0.918
Tucker–Lewis Index (TLI)	≥ 0.90	0.902
Root means square error of approximation (RMSEA)	≤ 0.08	0.080

Measurement Model

The validity of the measurement model was examined. Physical Flow, Information Flow, Financial Flow, Utility Flow, Sustainability Flow, Tourists' Satisfaction, and Tourists' Loyalty were examined by analyzing construct validity, convergent validity, composite reliability, and discriminant validity. The results of Composite Reliability (CR), Average Variance Extracted (AVE), and Cronbach's Alpha Coefficients are shown in Table 2.

Table 2 Construct reliability and variance extracted

Constructs	Items	Factor loading	α	CR	AVE
Physical Flow	Phy1	0.810	0.878	0.882	0.652
	Phy2	0.840			
	Phy3	0.815			
	Phy4	0.763			
Information Flow	Inf1	0.661	0.837	0.841	0.572
	Inf2	0.774			
	Inf3	0.754			
	Inf4	0.826			
Financial Flow	Fin1	0.807	0.832	0.830	0.551
	Fin2	0.793			
	Fin3	0.654			
	Fin4	0.704			
Utility Flow	Uti1	0.837	0.862	0.845	0.577
	Uti2	0.721			
	Uti3	0.715			
	Uti4	0.759			

Constructs	Items	Factor loading	α	CR	AVE
Sustainable Flow	Sut1	0.863	0.935	0.937	0.787
	Sut2	0.925			
	Sut3	0.902			
	Sut4	0.857			
Satisfaction	Sat1	0.813	0.935	0.932	0.732
	Sat2	0.868			
	Sat3	0.857			
	Sat4	0.841			
	Sat5	0.897			
Loyalty	Loy1	0.902	0.934	0.935	0.782
	Loy2	0.921			
	Loy3	0.906			
	Loy4	0.804			

According to Hair et al. (2010), the indexes of Convergent Validity, Factor Loading, Composite Reliability (CR), and Average Variance Extracted (AVE) must be greater than 0.6 and show statistical significance (Chin, 1998). Latent variable reliability should also be greater than 0.70 (Fornell & Larcker, 1981), and the Average Variance Extracted must be greater than 0.50 (Diamantopoulos et al., 2000). The analysis results indicate that the factor loading values ranged from 0.654 to 0.925, which is greater than 0.6 and statistically significant (Chin, 1998). The reliability of latent variables (CR) was between 0.830–0.937, which was greater than 0.70 (Fornell & Larcker, 1981). The Average Variance Extracted (AVE) was between 0.551–0.787, which was greater than 0.50 (Hair et al., 2010), indicating a convergence validity. The reliability analysis, using Cronbach's alpha coefficient (Cronbach's alpha: α), was between 0.832–0.935, which was greater than 0.70, indicating that the data were reliable (Bryman, 2008).

The discriminant validity was analyzed by comparing the square root AVE of a variable with the correlation coefficient between the variable and other variables (Hair el at., 2010). The results showed that the square root AVE of all variables was higher than the correlation coefficient between variables, indicating that the measurement was accurate and had discriminate validity (Table 3).

Table 3 Discriminate validity result

Constructs	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Physical Flow (1)	*0.807*						
Information Flow (2)	0.649	*0.756*					
Financial Flow (3)	0.726	0.664	*0.742*				
Utility Flow (4)	0.625	0.629	0.702	*0.760*			
Sustainable Flow (5)	0.597	0.601	0.632	0.653	*0.887*		
Satisfaction (6)	0.522	0.369	0.451	0.393	0.456	*0.856*	
Loyalty (7)	0.471	0.353	0.429	0.349	0.364	0.815	*0.884*

Note: Diagonal numbers are the square root of the construct's AVE (in italics); off–diagonal numbers are correlations

Structural Equation Modeling

Structural equation analysis was conducted to study tourism logistics management in Phra Nakhon Si Ayutthaya Province in order to examine path analysis and compare the consistency between the model and the empirical data. The model was adjusted to ensure consistency with the empirical data. The results of the index analysis after the model adjustment were as follows: Chi–square = 1049.256, df = 341, CMIN/DF = 3.077, CFI = 0.925, IFI = 0.926, TLI = 0.911, and RMSEA = 0.076. These results indicate that all indexes passed the criteria.

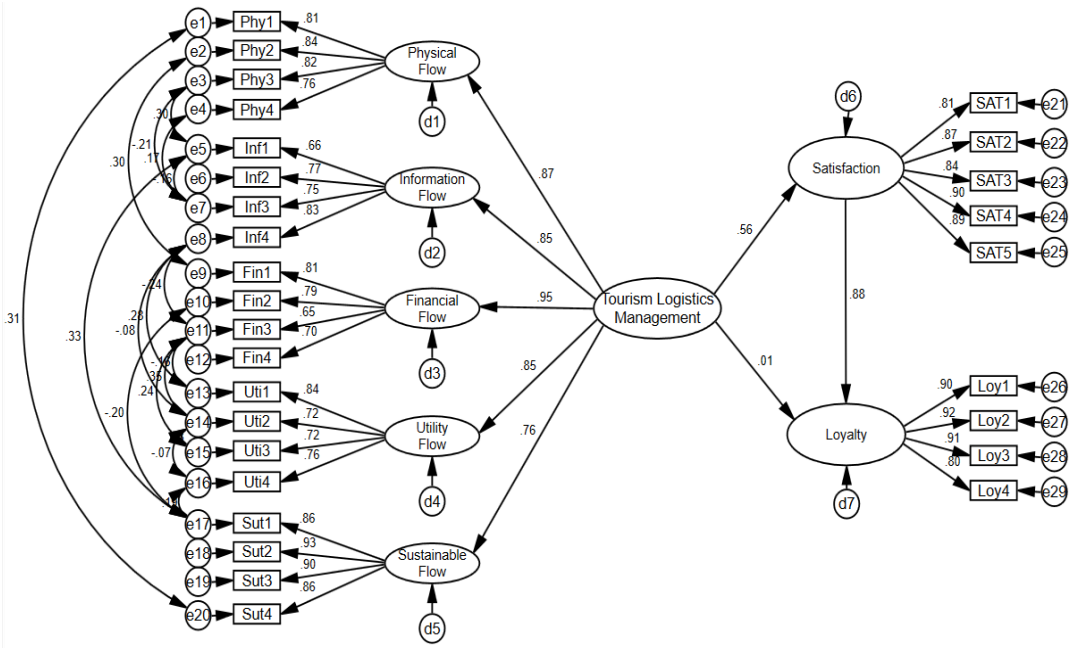

Figure 3. Structural equation modeling after Adjustment

Note: Chi–square= 1049.256, df= 341, CMIN/DF = 3.077, CFI = 0.925, IFI = 0.926, TLI = 0.911, RMSEA = 0.076

Table 4: The results of the goodness of fit Structural Model

Goodness-of-fit measures	Suggested criteria	Final Model
Chi square (CMIN)		1049.256
Degree of Freedom (DF)		341
Chi square/ Degree of Freedom (CMIN/DF)	≤ 5.00	3.077
Comparative fit index (CFI)	≥ 0.90	0.925
Incremental fit index (IFI)	≥ 0.90	0.926
Tucker-Lewis Index (TLI)	≥ 0.90	0.911
Root means square error of approximation (RMSEA)	≤ 0.08	0.076

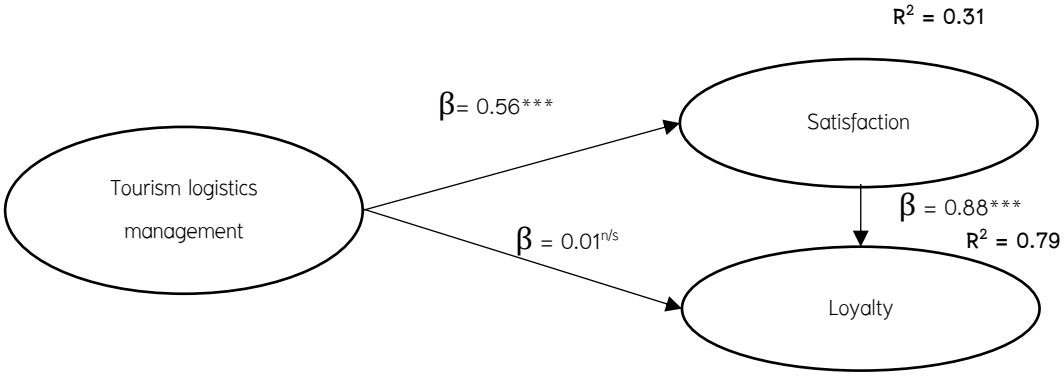

Figure 4. Results of the model analysis

Note: ***p < 0.001, n/s not significant

Table 5: Hypothesis testing results

Hypothesis	Path coefficient	Standard error	*t*-value	*p*-value	Decision
Tourism logistics management → Satisfaction	0.56	0.07	9.15	0.000	Supported
Tourism logistics management → Loyalty	0.01	0.06	0.27	0.786	Not Supported
Satisfaction → Loyalty	0.88	0.07	16.14	0.000	Supported

Table 5 revealed that tourism logistics management factors significantly influenced tourists' satisfaction (Satisfaction) in Phra Nakhon Si Ayutthaya Province (β = 0.56, t = 9.15, p < 0.001). Hence, the first hypothesis was accepted.

The tourism logistics management factor did not significantly influence tourists' loyalty in Phra Nakhon Si Ayutthaya (β = 0.01, t = 0.27, p > 0.001). Hence, hypothesis 2 was rejected.

Tourists' satisfaction significantly influenced tourists' loyalty in Phra Nakhon Si Ayutthaya Province (β = 0.88, t = 16.14, p < 0.001). Hence, hypothesis 3 was accepted.

Discussion

The study conducted focused on several aspects related to tourism logistics management, satisfaction, and loyalty of tourists in Phra Nakhon Si Ayutthaya Province. According to the findings of the study, tourism logistics management had a direct impact on tourists' satisfaction (Alegre & Cladera, 2009; Kim et al., 2013). Additionally, the study also revealed that tourists' satisfaction had a significant influence on their loyalty (Eid, 2015; Chi et al., 2008).

1. The confirmatory factor analysis of tourism logistics management, consisting of physical flow, information flow, financial flow, utility flow, sustainability flow, tourists' satisfaction, and tourists' loyalty, revealed that the model was consistent with the empirical data. The results of the confirmatory factor analysis of the measurement model after model adjustment found that the index and empirical data were consistent (Chi–square = 1127.689, df = 342, CMIN/DF = 3.297, CFI = 0.917, IFI = 0.918, TLI = 0.902, RMSEA = 0.080). All indexes' values passed the criteria, indicating that the model was consistent with the empirical data. The measurement model underwent evaluations for construct validity, convergent validity, composite reliability, and discriminant validity.

The results reveal that the factor loading was between 0.654–0.925, which was greater than 0.6 and statistically significant (Chin, 1998). The reliability of the latent variable (CR) was between 0.830–0.937, which was greater than 0.70 (Fornell & Larcker, 1981). The Average Variance Extracted (AVE) was between 0.551–0.787, which was greater than 0.50 (Hair et al., 2010), indicating the convergent validity. The reliability analysis using Cronbach's alpha coefficient (Cronbach's alpha: α) was between 0.832–0.935, which was greater than 0.70, indicating that the data were reliable (Bryman, 2008).

The discriminant validity was analyzed by comparing the square root AVE of a variable with the correlation coefficient between the variable and other variables (Hair et al., 2010). The results showed that the square root AVE of all variables was higher than the correlation coefficient between variables, indicating that the measurement was accurate and had discriminant validity. The results of the above analyses demonstrate that the confirmatory factor analysis aligns with the empirical data, which is one way to examine convergence validity. Similarly, Raengsungnoen (2011) noted that another crucial step in analyzing structural equation modeling is the confirmatory factor analysis. The researcher adjusted the results of the confirmatory factor analysis, which were consistent with the empirical data and had convergence validity that could be applied to the development of tourism logistics management in Phra Nakhon Si Ayutthaya Province.

2. This study analyzed the causal relationship model of tourism logistics management that impacts tourists' loyalty in Phra Nakhon Si Ayutthaya Province. The study revealed that tourism logistics management has a direct influence on tourists' satisfaction, which in turn directly influences their loyalty. The key findings of the study are summarized below.

H1: The study found that tourism logistics management significantly influenced tourists' satisfaction in Phra Nakhon Si Ayutthaya (β = 0.56, t = 9.15, p < 0.001), thus accepting hypothesis 1. This finding is consistent with Alegre and Cladera (2009) and Kim et al. (2013), who identified tourism logistics management as an essential part of providing a good experience for tourists, which directly impacts their satisfaction. Furthermore, this study highlights the importance of managing tourism logistics as a key factor in increasing tourist' satisfaction (Cheunkamon et al., 2021).

H2: The study found that the factor of tourism logistics management did not significantly affect tourists' loyalty in Phra Nakhon Si Ayutthaya province (β = 0.01, t = 0.27, p > 0.001), and therefore, hypothesis 2 was rejected. The results indicated that tourism logistics management had a direct impact on tourists' satisfaction, but it did not directly influence their loyalty. This was because loyalty is a continuous process, with tourists evaluating their experiences and satisfaction. If tourists have a better experience than expected, it leads to loyalty towards that place.

H3: Hypothesis 3 was accepted, as tourists' satisfaction had a significant influence on their loyalty in Phra Nakhon Si Ayutthaya Province (β = 0.88, t = 16.14, p < 0.001). This finding is consistent with the results of previous studies, such as Cheunkamon et al. (2021), which also found that satisfaction and trust directly impacted tourists' loyalty. Additionally, several other studies (Alegre & Garau, 2010; Som et al., 2011; Chi et al., 2008) have shown that the evaluation of tourists' satisfaction directly affects their willingness to revisit a place. Tourists' satisfaction is a key factor in enhancing their loyalty (Allen & Rao, 2000), as loyalty is a reflection of high satisfaction and occurs in people who are constantly satisfied. The results of this study align with those of previous research that have demonstrated a strong correlation between tourists' satisfaction and loyalty (Battour, Battor & Ismail, 2012; Lee & Hsu, 2013; Bowen & Chen, 2001; Som et al., 2011).

New Knowledge

The new knowledge findings revealed the model causal relationship of tourism logistics management influencing tourists' loyalty in Phra Nakhon Si Ayutthaya Province. This can be used as the model of relevant government agencies involved in the tourism industry should use this causal relationship model of tourism logistics management influencing tourist loyalty in Phra Nakhon Si Ayutthaya Province to enhance and increase the competitive advantages for the tourism industry.

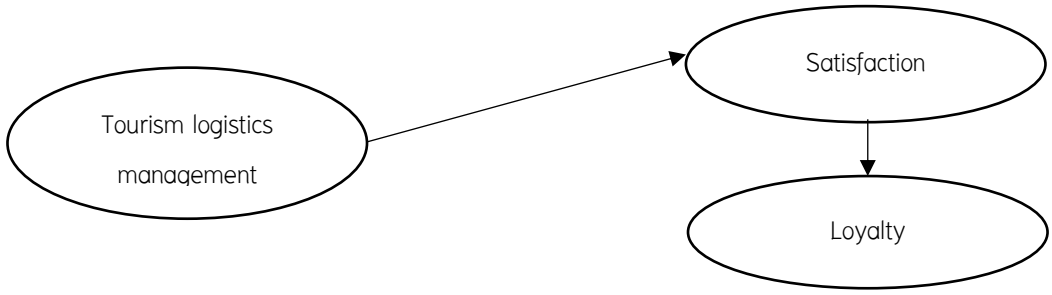

Figure 5: The model of the tourism logistics management influencing tourists' loyalty in Phra Nakhon Si Ayutthaya Province.

Conclusion

The model depicting the causal relationship among tourism logistics management that influenced tourists' loyalty in Phra Nakhon Si Ayutthaya province indicates that tourism logistics management, comprising 1) Physical flow, 2) Information flow, 3) Financial flow, 4) Utility flow, and 5) Sustainable flow, directly influenced tourists' satisfaction. Furthermore, tourists' satisfaction directly influences their loyalty to the tourist attraction. The causal relationship among tourism logistics management that influenced tourists’ loyalty in Phra Nakhon Si Ayutthaya province indicated that tourism logistics management consists of 1) Physical flow, 2) Information flow, 3) Financial flow, 4) Utility flow, and 5) Sustainable flow directly influenced tourists’ satisfaction.

Additionally, tourists' satisfaction directly influences their loyalty to the tourist attraction. The findings clearly indicate that enhancing tourists' loyalty is an ongoing process. For instance, tourists assess their satisfaction with their experiences. If they have a better experience than expected and feel it is worth the time and money spent on the visit, it leads to loyalty to that place. If their satisfaction is very high, it also leads to high loyalty, which makes tourists want to revisit the place in the future, willing to pay to travel again or recommend it to others.

The process of building loyalty requires a deep understanding of individuals' needs. The tourism products or resources that tourists need must be presented at tourist attractions.

Recommendation

Recommendations for Implementing

1. The relevant government agencies involved in the tourism industry should use this causal relationship model of tourism logistics management to influence tourist loyalty in Phra Nakhon Si Ayutthaya Province to enhance and increase the competitive advantages for the tourism industry.

2. There should be the development of tourism logistics management consisting of 1) Physical flow, 2) Information flow, 3) Financial flow, 4) Utility flow, and 5) Sustainable flow to create tourist satisfaction and loyalty.

3. According to this study result, the government authorities involved tourism sector can emphasize those important aspects; financial and utility flow, in order to improve the tourism logistics management.

Future Research Direction

1. There is no model that is completely effective and globally competitive in all environments due to sociocultural differences (Gomezelj & Mihalič, 2008). Therefore, the model created in this study should be used and studied with other tourist attractions as well.

2. In this study, the subjects were Thai tourists only. Future studies can collect data from foreign tourists to gain more complete information.

3. Future studies can use qualitative methods in data collection and data analyses such as in-depth interviews or focus group interviews to reflect the results of this research

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