

Logistics Management for Tourism in Lam Phaya Floating Market, Nakhon Pathom Province, Thailand

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Abstract

The point of this study was to find out how satisfied tourists were with the Lam Phaya Floating Market in Bang Len District, Nakhon Pathom Province, with the three main parts of tourism logistics management: facilities, information and services for tourists, and transportation for tourists. Therefore, the research aimed to focus on 400 tourists visiting Lam Phaya Floating Market by using a questionnaire to collect data. The statistics used to analyze the data were frequency, percentage, arithmetic mean, and standard deviation.

The results of the research found that the satisfaction of tourists regarding the components of overall management, Lam Phaya logistics management was at a high level ($\bar{x} = 3.99$, standard deviation = 0.49). After analyzing at each part, transportation services had the highest mean value and a high level of satisfaction ($\bar{x} = 4.10$, standard deviation = 0.53). Information services came in second with a high level of satisfaction ($\bar{x} = 3.97$, standard deviation = 0.58), and facilities came in last with a high level of satisfaction ($\bar{x} = 3.88$, standard deviation = 0.58).

Keywords: Logistics Floating Market, tourism, Logistics Management

1. Introduction

The tourism industry is a high-growth industry that plays a significant role in the economic and social systems of Thailand. It is an important source of income, job creation, and the distribution of prosperity among the regions. It also plays an important role in developing the transportation infrastructure system. When the country is in an economic crisis, tourism plays an important role in generating income and can help the economy recover faster than other manufacturing and service sectors (Ministry of Tourism and Sports, 2022).

As can be seen from the tourism situation of foreign tourists traveling to Thailand from January to December 2023, the number of tourists and accumulated income from tourism, both domestic and international, expanded from the previous year. The number of foreign tourists expanded by 154.40 percent from the same period last year, and the number of Thai tourists expanded by 22.59 percent from the same period last year. Meanwhile, income from foreign tourists expanded by 165.72 percent, and income from Thai tourists expanded by 19.81 percent over the same period last year. The total income from tourism was 2.13 trillion baht, an expansion of 78.45 percent from the same period last year (Department of Tourism and Sports Economics, 2024). Tourism is an important service industry for the country's economy because

it generates a large amount of income for the country. Additionally, tourism distributes its income to a wide range of business sectors, including direct tourism businesses such as transportation, accommodation, food and entertainment, tour and guide businesses, and souvenir sales, as well as tourism development businesses such as communication, advertising, public relations, and banking (Boonlert Chittawattana, 2011). Therefore, the tourism industry is considered the core of income generation for Thailand. Each year, there are a large number of foreign tourists visiting Thailand. Even though Thailand has faced many problems, both natural disasters and political situations, and the impact of the global economic slowdown, it can be seen that the tourism sector continues to expand continuously.

Floating markets are a phenomenon of central Thai society. In the past, people liked to build houses along the river because rivers and canals are important routes of travel. Floating markets are therefore an example that reflects the importance of water in the way of life of Thai people, most of whom live and make a living through agriculture. When farmers have their produce, they bring those products to trade and exchange in a convenient place for travel, which is in the river. Some floating markets are therefore markets on waxing and waning moon days, called “Nad,” because there will be a floating market on every waxing and waning moon, the 2nd, 7th, and 12th lunar month (Kittiporn Jaibun, 2006). Similarly, the Lam Phaya floating market area, considered another form of tourist attraction, combines a cultural floating market with a local market selling agricultural products. The Lam Phaya floating market is located at the pier of Wat Lam Phaya on the Tha Chin River in Bang Len District, Nakhon Pathom Province. It is a floating market that has quickly become popular. There are agricultural products in the community—local food, seafood, both vegetables and fruits, and various local products—available on large rafts, with rowing boats parked and providing services along the pier. There are also many shops on the shore where you can walk around and enjoy shopping for souvenirs to take home or sit and eat at the floating market as you wish.

Creating satisfaction for tourists during travel and providing information and various facilities are part of logistics. Therefore, researchers are interested in studying ways to develop logistics management. Kotler (2003) stated that satisfaction is the feeling customers have after comparing product performance to expectations. If we consider the satisfaction level of customers after a sale, they will either be satisfied or dissatisfied with the product or service. If the results of the product or service fall short of the customer's expectations, they will be dissatisfied. But if the level of results received from the product or service matches the customer's expectations, the customer will be satisfied. And if the results received from the product or service are higher than the customer's expectations, the customer will be impressed. The difference in the 3 levels of satisfaction mentioned will affect the decision to buy again or come back to visit again and publicize the good and bad things of the product to other people. Another study by Manatsinee Boonmeesrisongsa and others (2013) looked at what makes Thai tourists happy and how they behave at Chatsila Market in Hua Hin District, Prachuap Khiri Khan Province.

They discovered that the physical features of the market, the level of trust and reliability, the response to service recipients, and the care and confidence of the market's staff all had a big effect on the tourists' decisions to visit. Given the aforementioned significance, the researcher is keenly interested in examining how tourists perceive logistics management, specifically in relation to transportation and information services. In terms of facilities, a case study of the Phaya Floating Market is being conducted to analyze the logistics management approach for

tourism from the perspective of those involved, with the aim of enhancing their ability to compete sustainably.

1.1 Research Objective

1. To study the tourism behavior of tourists at Lam Phaya Floating Market, Bang Len District, Nakhon Pathom Province.

2. To study the satisfaction of tourists with the components and management of tourism logistics in 3 components: tourist transportation services, information services, and facilities for tourists at Lam Phaya Floating Market, Bang Len District, Nakhon Pathom Province.

2. Methods

This study employs a quantitative method. Researchers conducted the research between October 2023 and September 2024. The research area is Lam Phaya Floating Market, Bang Len District, Nakhon Pathom Province, which is a channel that farmers in the case study are interested in and is a platform that has been used for some time. The researcher has defined the steps and details of the research operation as follows:

Population and samples

The population and sample used in this research were tourists visiting Lam Phaya Floating Market, Bang Len District, Nakhon Pathom Province. The exact number is unknown. Therefore, the researcher used the method of calculating the sample size using Taro Yamane (1973) formula, which specifies the error rate of 5 percent at the 95 percent confidence level and sets the statistical significance level at 0.05. The sample group was calculated to be 385 people. In order to obtain more complete data, a total sample of 400 people was used by selecting a purposive sample from the group of tourists visiting Lamphaya Floating Market, Bang Len District, Nakhon Pathom Province.

Instruments used in the research

Researchers collect primary data using a questionnaire in the form of a rating scale, which determines the weight of each answer option (Likert, 1961), and secondary data, which includes books, documents, journals, articles, websites, and related research. The questionnaire is divided into three parts: Part 1: Personal information of tourists visiting Lamphaya Floating Market, Bang Len District, Nakhon Pathom Province Part 2: Information on three main aspects of logistics management Part 3: Other opinions and suggestions The researcher checked the content validity with the index of consistency (IOC) of three experts. The reliability was found by testing (tried out) with 30 tourists visiting Lamphaya Floating Market and then used to find the Cronbach's Alpha Coefficient, which gave a reliability level of 0.819 (Sooksai, 2019).

Data collection

The researcher collected data by distributing questionnaires and followed up to collect questionnaire data until reaching 400 people as specified, which is a response rate of 100 percent (Wirapongpat et al., 2022). The data obtained were analyzed and the research results were summarized.

Data Analysis

For this study, descriptive statistics like percentage, mean, and one-way ANOVA were used to look at the data and get the results that were needed. The data were then described to show how happy tourists were with the logistics management at Lam Phaya Floating Market in Bang Len District, Nakhon Pathom Province.

3. Results and Discussion

The results of the analysis of personal factors of the satisfaction of tourists visiting Lam Phaya Floating Market, Bang Len District, Nakhon Pathom Province, regarding the components of tourist logistics management, are shown in the following table.

Table 1. Tourists gender

gender	amount	percent
Female	274	68.50
Male	126	31.50
Total	400	100

From Table 1, it was found that the majority of the respondents were female, 274 people, or 68.50 percent, and male, 126 people, or 31.50 percent.

Table 2. Tourists ages

Age	amount	percent
Less than 20 years	55	13.75
21 – 40 years	180	45.00
41 – 60 years	90	22.50
Over 60 years	75	18.75
Total	400	100

From Table 2, it was found that most of the respondents were between 21 and 40 years old, 180 people, or 45 percent, followed by those between 41 and 60 years old, 90 people, or 22.50 percent, those aged 60 and over, 75 people, or 18.75 percent, and the least were under 20 years old, 55 people, or 13.75 percent.

Table 3. Tourists education

Education level	amount	percent
Below bachelor's degree	143	35.75
Bachelor's degree	205	51.25
Above bachelor's degree	52	13.00
Total	400	100

From Table 3, it was found that the majority of the respondents had a bachelor's degree, 205 people, or 51.25 percent, followed by those with a lower than bachelor's degree, 143 people, or 35.75 percent, and the least were those with a higher than bachelor's degree, 52 people, or 13.00 percent.

Table 4. Tourists' occupation

Occupation	amount	percent
Civil servant/State enterprise	55	13.75
Private company employee	129	32.25
Trading/Private business	114	28.50
General employment	53	13.25
Others such as student/housewife/retired	49	12.25
Total	400	100

From Table 4, it was found that the majority of the respondents were employees of private companies, 129 people, or 32.25 percent, followed by those in trading/private businesses, 114 people, or 28.50 percent, followed by civil servants/state enterprises, 55 people, or 13.75 percent, and the least were others, 49 people, or 12.25 percent.

Table 5. Tourists' income

Income	amount	percent
Less than 10,000 baht	60	15.00
10,001 - 25,000 baht	103	25.75
25,001 - 40,000 baht	173	43.25
Over 40,001 baht	64	16.00
Total	400	100

From Table 5, it was found that most of the respondents had an income of 25,001 – 40,000 baht, 173 people, or 43.25 percent, followed by 10,001 – 25,000 baht, 103 people, or 25.75 percent, and the least was less than 10,000 baht, 60 people, or 15.00 percent.

Table 6. Tourists' satisfaction level

Factors	Satisfaction levels		
	\bar{x}	S.D.	Meaning
Transportation service	4.10	0.53	High level
Information	3.97	0.58	High level
Facilities	3.88	0.58	High level
Total	3.99	0.49	High level

From Table 6, the results of the analysis of tourists' satisfaction with the components of logistics management were at a high level ($\bar{x} = 3.99$, standard deviation = 0.49). When considering each aspect, it was found that the aspect of transportation service had the highest mean value, with a high level of satisfaction ($\bar{x} = 4.10$, standard deviation = 0.53), followed by the aspect of information service, with a high level of satisfaction ($\bar{x} = 3.97$, standard deviation

= 0.58), and the aspect of facilities, with the lowest mean value, with a high level of satisfaction ($\bar{x} = 3.88$, standard deviation = 0.58), respectively.

4. Conclusion

People of different ages and incomes travel differently at the Lam Phaya Floating Market in Bang Len District, Nakhon Pathom Province. Based on this study, we can say that people with different incomes are generally less or more satisfied with the market's logistics. Researchers found that tourists with an income of 20,001–40,000 baht or more have the highest average satisfaction with Lam Phaya Floating Market logistics. We can conclude that tourists with varying monthly incomes experience varying levels of satisfaction with travel logistics.

Occupation differences in travel behaviors at Lam Phaya Floating Market, Bang Len District, Nakhon Pathom Province, classified by occupation, have different average satisfaction with Lam Phaya Floating Market logistics. The company employee occupation exhibited the highest average difference. We can conclude that the satisfaction with travel logistics varies across different occupations.

Education differences in travel behaviors at Lam Phaya Floating Market, Bang Len District, Nakhon Pathom Province, classified by education level, have different average satisfaction with Lam Phaya Floating Market logistics. It was found that bachelor's degree education has the highest average. We can conclude that different education levels exhibit different travel behaviors. Different relationships between groups of people have different satisfaction levels with travel logistics.

Age Differences in Travel Behaviors at Lam Phaya Floating Market, Bang Len District, Nakhon Pathom Province, classified by age level There are different average satisfaction levels of Lam Phaya Floating Market logistics. The age group 21-40 years has the highest average. We can conclude that the satisfaction levels of tourism logistics vary among different age groups.

In terms of gender, the differences in behavior in traveling to Lam Phaya Floating Market, Bang Len District, Nakhon Pathom Province, classified by gender, have different average satisfaction levels of Lam Phaya Floating Market logistics. We found that women have the highest average. We can conclude that genders differ in their satisfaction levels with tourism logistics.

Tourists must be satisfied with the logistics components of transportation services, the local transportation system must be easily accessible, and public transportation must be convenient, safe, and reasonably priced. There must be continuous bus schedules even if there is no advance booking via the application. Information on routes or travel must be clearly detailed and easy to access at the location. This is consistent with the research of Phakamon Hongku (2022), who studied the tourism behavior and satisfaction of Thai tourists in traveling to the old city of Songkhla Province. The results of the research found that different genders have different satisfaction levels in terms of traveling to tourist attractions. Additionally, tourists were pleased with the information, ease of access to information, and facilities, as well as the availability of restrooms, rest areas, and comfortable seating areas. This is in line with the findings of Anan Ruangkalpawong and Sarawan. Ruangkanpawong (2020) studied the guidelines for increasing the potential of tourist attractions and developing the management of tourism logistics in tourist

attractions in Nakhon Pathom Province. In Nakhon Pathom Province, he said that facilities, information management, physical management, and tourist attractions are the things that affect tourist satisfaction. This is shown in the equation: factors affecting tourist satisfaction in tourist attractions = 0.250 + 0.365 (facilities) + 0.275 (information management) + 0.232 (physical management) + 0.052 (tourism attractions).

5. Suggestions

Tourist transport service goals are to develop a convenient, safe, and accessible transport system for tourists. The system will encompass a diverse range of transport modes, including buses, trains, taxis, boats, and bicycles, catering to both urban and rural areas. The system ensures efficient connectivity. The system is designed to facilitate travel between tourist attractions, mass transit systems, and airports. We utilize technology and advance booking methods, such as online ticket booking, navigation applications, or platforms, to assist tourists in planning their trips. We are committed to delivering sustainable transport services. We are actively promoting the use of vehicles that reduce carbon dioxide emissions, such as electric trains or alternative energy vehicles. The goal of information dissemination and reception is to enhance access to accurate, up-to-date, and tourist-friendly information, as researched by Wissawa Aunyawong and group. (2022) conducted a study on the Digital Development to Strengthen Tourism Supply Chain Potential of Participatory Community-Based Tourism Enterprises, the study found that in offering products and services to tourists, it consisted of the storefront and database software systems for product or service owners. The community could record data to present information on the history, origin of products, product information in digital media format. Tourist information centre components Set up information centres in key areas, such as airports, train stations, and major tourist attractions, to provide advice and assistance to tourists. Information technology, including websites, social media platforms, and applications, is utilized to provide information on tourist attractions, travel, and accommodation. The creation of signs and maps, including multilingual signs and clear maps for tourists, is also being implemented, along with the use of QR codes to present additional information. Reception and communication Train personnel to have excellent reception and communication skills, especially in foreign languages. The facilities aim to cater to the needs of tourists throughout their entire journey. Accommodation and support service components Develop a variety of accommodation types, such as hotels, homestays, and camps, to accommodate a variety of tourists. Sanitary and public area services. Provide public toilets in tourist areas and community areas, including rest areas. Medical and safety services Provide primary medical services and comprehensive safety systems. Comprehensive facilities Develop infrastructure for all tourist groups, such as the elderly or the disabled (ramp, elevator, and special toilet). Kamolsak Passa and Klai Ruang Pronan (2024) looked at how satisfied tourists were with logistics management for tourism and how that affected their loyalty as tourists in Phitsanulok Province. They discovered that four aspects of logistics for tourism—information flow, financial flow, facilities, and sustainability—have a positive effect on tourist loyalty at a 0.05 level of significance. The development of efficient logistics management can promote sustainable tourism in Lamphaya Floating Market, as researched by Adisai Wattanaputi et al. (2020). Adisai Wattanaputi et al. (2020) conducted a study on the impact of logistics management for tourism on the efficiency of logistics management and the loyalty of tourists in Phra Nakhon Si Ayutthaya Province. The results of the research found that logistics management for tourism has a direct positive effect on the efficiency of logistics management

for tourism. However, the efficiency of logistics management for tourism also has a positive effect on tourist loyalty. Logistics management for tourism does not affect tourist loyalty in Phra Nakhon Si Ayutthaya Province. And the management of tourism logistics has a positive effect on tourist loyalty, with its efficiency as a transmission variable. The management of tourism logistics should coordinate between the government sector, private sector, and local communities, including using technology and innovation to support the provision of quality, convenient, safe, and sustainable services in the long term, as researched by Anchalee Hiranphaet. (2019) conducted a study on the Supply chain management factors affecting tourists' satisfaction towards Thung Bua Daeng Floating Market, Thailand. The results of the research found that Guidelines for the supply chain management of the floating market were created and the identity or the story of the place was framed and then it was created as a beautiful place with unique characteristics, containing exotic and different tourist activities, applying products and a range of activities according to local wisdom. It is providing facilities, restaurants, and souvenirs shops, managing space appropriately, providing signs for easy access, providing sufficient parking service, selecting quality stores allowing nearby farmers to sell products so that customers may purchase products directly from farmers and the idea is to also use social media to reach customers more widely.

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