

CHAPTER III

RESEARCH METHODOLOGY

The research methodology for this research has been selected in order to obtain data and generalize about the infrastructure development area for bicycle tourism in Rattanakosin Island, Bangkok by focusing on the cycling association members, recreational cyclists, professional cyclist, and occasional cyclist including cycling tourist. The study investigated two parts of the tourism sector which consists of physical conditions of bicycle infrastructure along Rattanakosin Island bike routes and an emotional part that cyclists express regarding the current bicycling infrastructure.

Nevertheless, the study was a part of limited information available on bicycling infrastructure. The best information was achieved using a qualitative methodology with holistic approach. The selected questions were put to participants who were believed to fulfill the research purpose and discover a better basic understanding of the appropriate bicycling infrastructure related to Bangkok's future bicycle tourism development. The lack information relevant to this research provides opportunities for future studies particularly by using a larger number of participants.

This research involved the researcher using direct observation along with physical checklists and in-depth interviews for collecting the data. The researcher has classified the procedures as:

1. Population and Sample
2. Research Instrument
3. Data Collection
4. Analysis of Data

The Population and Sample

The researcher considered types of cyclists who have more than one year cycling practical which consist of cycling associate member, cycling club member, recreational cyclists, cycling tourists, professional cyclists including people who

cycling occasionally . The studies consider entire populations which present distinctly characterize. In order to discover through research purposed therefore, the sample were selected by non-probability sampling used purposive sampling methods.

The researcher selected the sampling group from the cyclist's categories. The tables below show all types of cyclists in the research populations (Table 2) are selected to study with both direct observed and in-depth interview. The type of cyclists related (Table 3) was selected for the interviews include:

Table 2 The type of cyclist

Type	Category	Characteristics
A. Cyclist enthusiast	Professional cyclist	Practicable cycling for sport participation.
	Association cycling member	Usual cycling in events and practicable cycling as common.
B. Occasional cyclist	Domestic cyclist	Cycling for the purpose of transport such as short trip to work, recreation, holiday or activities.
	Tourist	Cycling just on vacation, holiday part of tour activities, tour program, dependent tourist and usually cycling not more than one week.

Source: <http://ezinearticles.com/The-6-Unique-Types-of-Cyclists>

The researcher determined the sample size of cyclists type involved with bicycle tourism into 2 groups which deliberated chosen to ensure the data approached to the cycling experiences on current bicycle infrastructure and explore how improvement require for the future bicycle infrastructure development. The cyclists were selected present their character provided benefit data as follows:

1. Cyclist enthusiast
2. Occasional cyclist

The only sampling group selected shows in table 3. Consist of key person from each type of cyclists as;

Table 3 The number of research sampling

Type of Cyclist	Representative	Number of representatives
Cyclist enthusiast	Thailand Cycling Association	2
	Professional cyclist	2
Occasional cyclist	Cycling tourist	2
	Recreational cyclist	2
Total		8

Research instrument

In order to achieve the research objective, the researcher designed a research instrument to gather the greatest input that included, direct observation used with photograph and observation checklist to be recorded as a primary data.

The opened-ended questions with semi-structure interviews were used to all key informants in order to explore what were the appropriate bicycling infrastructure do they require to improve for future development. The interviews were structured of How their experienced to the current bicycling infrastructure was and Are the physical factors and emotional factors of the current bicycling infrastructure stimulated their cycling. In addition, the significant to gain knowledge of cyclists' experiences and expression from their point of view including offer opportunities to participant to get involve in order emphasizing of issue data research.

The documentary such previous researched and others published bicycle issue related use to support and demonstrate all the information data acquire from observation and interviewed.

Data Collection

In order to explore the significant factors of the current bicycling infrastructure visible and how efficiency was through research intention therefore, researcher decided to divide investigation into two parts focusing on **physical elements** and **emotional elements**. The key method aim was to find out, whether the current visible cycling infrastructure meet cyclist requirement investigates from physical part and the fact based on cyclist desire to be improving explored from emotional part.

To get a clear picture of the research methodology, **the first part** of physical elements of the investigation included primary research based on current infrastructure provided in Rattanakhosin Island since “Bangkok Green Bike” project has been establish in this area. **The direct observation** (1) with check lists used to obtain data of the capabilities cycling infrastructure and presented in the form of picture along bicycle route in Rattanakhosin Isalad. **The second part** of physical elements data used **in-depth interview** (2) with Thai Cycling Association members and other cyclist categories as mentioned in order to gain the experiences of using cycling infrastructure in the study area previously from the cyclists’ point of view which provide how efficiency of cycling infrastructure. The previous research and published document are very useful for knowing the circumstances of each part and firmed support.

Table 4 Research Methodology Ideal

	Key Elements	Methods for gathering data
Physical data	1. Bike lanes	1. Direct observation
	2. Bicycling path	2. Picture, photograph
	3. Cycling Pave	3. Publish document
	4. Signed Shared Roadway	4. Previous research
	5. Connecting route	5. In-depth interview
	6. Bicycle Rack	Thai Cycling Association
	7. Parking	Professional cyclist
	8. Safety/Security, Others.	Touring cyclist.

Table 4 (Cont.)

	Key Elements	Methods for gathering data
Emotional data	<ol style="list-style-type: none"> 1. Bicycling experiences. 2. Feeling invoked from cycling to current infrastructure. 3. Requirement. 4. Security, Other related elements. 	<ol style="list-style-type: none"> 1. Direct observation 2. In-depth interview Thai Cycling Association. Professional cyclist Recreation and Tourist.

Source: Adapted from Bicycling Infrastructure by Johnson, 2012

The holistic approach used to achieve the objectives of the research. **The data collection** uses a purposive approach of in-depth interviews. The questions were conducted face-to-face with two participants of Thai Cycling Association in addition; the majority of the interviews were conducted over the phone. The thrust of the study is to obtain the information of cyclists' experiences regarding bicycle infrastructure to better understand their requirements and to provide guidelines for bicycle tourism development within Rattanakosin Island, Bangkok.

The qualitative research method with in-depth interview design for the related cycling categories to focused on the cyclists' experienced and other knowledge of the bicycle infrastructure that facilitate to them, other facilities included cycling motivations used to study and investigate whether the cycling infrastructure meet requirement to serve the appropriate development of bicycle tourism with in Bangkok. Therefore, the studies focus fact on significant bicycling infrastructure that provided to cycling in the area was appropriated and efficiency to lead the bicycle tourism development in Bangkok.

The data collected at the same week on different days and times included locations carried along with checklists and photos taken from place to place in Rattanakosin areas. Similarly, interviewed conducted with each type of cyclists were recorded and transcribed verbatim by one researcher.

Data analysis method

To reach the research objective, content analysis technique were best fit to picture the research objective. The respondents from different part participants marked letter P and location were conducted marked letter L with number as;

P1	=	Participant 1
P2	=	Participant 2
P3	=	Participant 3
P4	=	Participant 4
P5	=	Participant 5
P6	=	Participant 6
P7	=	Participant 7
P8	=	Participant 8
L1	=	Location 1: Bangkok Tourism Division through Ban Phra Athit
L2	=	Location 2: Phrasumen Fort through Bangkok City Hall
L3	=	Location 3: Suan Saranrom public park through Sib Sam Hang Road
L4	=	Location 4: The Grand Palace through The Temple of the Emerald Buddha
L5	=	Location 5: The National Museum through Bangkok Tourism Division

The physical condition rate score of bicycling infrastructure were identified scale as;

5	=	Excellent
4	=	Good
3	=	Fair
2	=	Poor
1	=	Need improvement

The key summary can be classified into 3 parts as follows:

Part 1: To obtain data and explore the current physical condition of efficiency cycling infrastructures were thus, direct observation, check list and photo taken were used and identify how physical condition reached efficiency in percentage

used excel process data. Similarly, holistic approached used to descript how current infrastructure visible in research areas.

Part 2: To obtain data and explore the cyclists' experience and satisfaction included cyclists' requirements for the current bicycle infrastructure collected with direct observed, interviewed question from selected cyclists which consist of bicycling member, professional, tourist and recreational cyclist. The data was analyzed in percentage of how satisfactions to current bicycle infrastructure was and take holistic approached to descript of what were cyclist required.

Part 3: To obtain knowledge of the appropriate cycling infrastructure to development of bicycle tourism in Bangkok, the research methodology used in-depth interviews and direct observation. Therefore, the transcript interpreted to compare with previous research and others documents.

The direct observation used to investigate on bicycling infrastructure in physical condition and supported checklist along with photograph form. This framework was initially conceived as a way to organize the picture visible of bicycling infrastructure and how people interact.

1. Area observation conducted around Rattanakhosin Island where the cycling present.
2. The observation carries with observation checklist and tick as appropriate whether the cycling infrastructure visible is reasonable.
3. Interpret and raise conclusions.
4. Take a photograph to support the observation of physical visible.
5. Analytic induction approach is about a phenomenon such as cycling infrastructure provided in Bangkok. These include lanes, pathways, racks, routes, connecting routes, safety and others items.
6. Analytic information base on analytic induction and classified data such as efficiency infrastructure type that need to improve will be summarized.
7. Analytic content comparisons. This is to summarize the correlative of cycling infrastructure provided, the areas needed to improve and the appropriate ways to meet their requirements.

The in-depth interview conducted how cyclist experiences with the current cycling infrastructure and what are the requirement of future improvement to interpret

the guideline of bicycle tourism development in Bangkok. The research was conducted with the Thai Cycling Association members, professional, cycling tourist and recreation cyclist in order to gather data to using the practices below;

1. Use tape recorder by face to face and ask the question provided by theme, cluster, and issue lead to the points of discussion.
2. Classify data type in each file.
3. Interpret and raise conclusions.
4. Analytic induction approach is about a phenomenon such as cycling infrastructure provided in Bangkok. These include lanes, pathways, racks, routes, connecting routes, safety and others items.
5. Analytic information base on analytic induction and classified data such as infrastructure type requirement will be summarized.
6. Analytic content comparisons. This is to summarize the correlative of cycling infrastructure provided, the areas needed to improve and the appropriate ways to meet their requirements.

Conclusion

The study of bicycle tourism development based on cycling infrastructure in Bangkok uses a qualitative research methodology. This study proposes research methodologies for collecting data from bicycling key informants in Bangkok. The in-depth interviews used for the qualitative researcher methodology with cyclist association members and others cyclist categories in mode of professional, recreational and tourist. The face-to-face interviews were conducted with two key informants from Thai Cycling Association, the majority of the interviews conducted over the telephone. The research methodology used of semi-structure questionnaire interview with Thai cyclist to approach data within study context. Additionally, the direct observation, checklist, photograph and documentation analysis used for being a support technique to collect a basic data.