Strategies for Developing Cycling Tourism in Urban Communities Based on Characteristics of Motivation

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ABSTRACT

Sports for some people are not only a necessity of daily life but also have been considered a lifestyle. Aside from being a regular alternative to keeping the body fit, it has many other benefits. The rapid development of this lifestyle of sports in urban communities is characterized by the increasing number of community groups that routinely do the type of exercise that can be done in between the limitations of time. Cycling is one of the activities that are much in demand by urbanites, as this type of sport activity gives both convenience and an outlet for an engaging fun. The emergence of cycling groups in urban communities is a reflection of the need for exercise routines that also provides outdoor recreation. There are various kinds of motivations for cyclists, from just wanting to exercise, to travel, to save fuel and avoid traffic, to minimize the effects of air pollution, or to look for new experiences and challenges, including new friendships or as an output of self-actualization. This research uses a qualitative descriptive phenomenological method, as well as a non-random purposive sampling technique on two urban bicycle groups, namely TOC and JGS-SCAM as primary data and used literacies data from others researcher as secondary data which reviewed as a systematic method-meta synthesis. Survey for primary data collection was done by using the Google questionnaire application and the data was analyzed interactively by the model of Miles, Huberman, Saldaňa. The questionnaire results obtained were able to classify and characterize the urban cyclists based on their characteristics and motivation, and also determined the strategies for developing urban cyclist tourism by analyzing internal IFAS and external EFAS factors from the motivational characteristics of the urban cyclist, then the strategies were determined by using the SWOT method, ultimately cummulating into plans to develop a cycling tourism for urban communities.
Keywords: *urban cycling groups;cycling characteristics-motivation; IFAS-EFAS-SWOT*

INTRODUCTION

Background

Many positive effects are obtained by doing outdoor sports activities. By exercising outside, the body improves more exponentially as the oxygen intake and sun exposure obtained is greater than the activity of sports done indoors. Generally, outdoor sports are also carried out to get the chance to cultivate the body while simultaneously functioning as recreation, releasing fatigue and the tedium of daily routinity[1]. Naturally, the body will produce happy hormones when we do sports. However, by exercising outdoors, we can enjoy the surrounding scenery, especially the greenery from nature, which also known to reduce stress [2]. With this fresh and soothing sensation, exercising outdoors is enjoyable enough as to become a daily habit. Based on the Metabolics Equivalent - MET index, cycling for one hour for an average speed of 20 km/hour with a bodyweight of $\pm$ 60 kg will burn as many as 480-500 calories [3]. Most urban communities have limitations in doing sports activities.There are many choices of outdoor sports activities, ranging from running, cycling, rafting, kayaking, hiking, tracking, to outdoor camping. Cycling is one of the favored types of sports activities that are chosen by the urbanites. Besides being practical, easy to do, and healthy, biking can get us to our destination faster, because it is relatively unaffected by traffic problems. Aside from that, bicycles are one of the modes of transportation without fuel, which means that it is environmentally friendly. It will not cause air and noise pollution. Cycling also does not add to traffic jams and clutter on the road. Environmentally friendly transportation means a collection of transportation forms with a more

sustainable model[4]. By cycling, we can exercise while enjoying the scenery along the journey.The motivations of urban cyclists are mostly psychological needs[1],belonging needs and self actualization needs (Maslow's Hierarchy)[5]and are attracted by conditions to and a destination (The Push-Pull Model Theory)[6]. Beside those, there are other things that would be obtained, such as interacting and using the available local community facilities, as well as tasting and experiencing the local culture(Card and Kestel Theory)[7].

Cycling activities then developed not only as a choice of hobby, but it is also related with the daily activities of urban communities in urban areas[1]. The realization of an environmentally friendly city is a concept that must be promoted to realize a balanced development in urban areas.This is as stated in Law number 22 of 2009 concerning traffic and road transportation, particularly in article 62[8] and the derivative of that law contained in Government Regulation number 79 of 2013, article 26[9] that cyclists are entitled to get supporting facilities for security, safety, order, and smooth traffic. This supporting facility is in the form of special lanes for cyclists, and special crossing facilities which are also used in conjunction with pedestrian facilities. Thus the rights and obligations of these cyclists have been legally protected by the government.

Many limitations are possessed by cyclists when compared to the use of motorized transportation modes. The obstacle lies on the uncertain availability of supporting facilities, a difference in the distances travelled by the types of cyclist, as the activity relies on physical strength and cycling experience. Four types of supporting facilities that can be used for cycling activities in urban areas are shown in pictures 1, are A) SR-Shared Roadway (sharing roads with motorized vehicles); B) WCL-Wide Curb Lane (using the shoulder of the road); C) BL-Bike Lane (special bicycle lane), and D) SP / L-Separated path or lane (separate from the highway)[10].
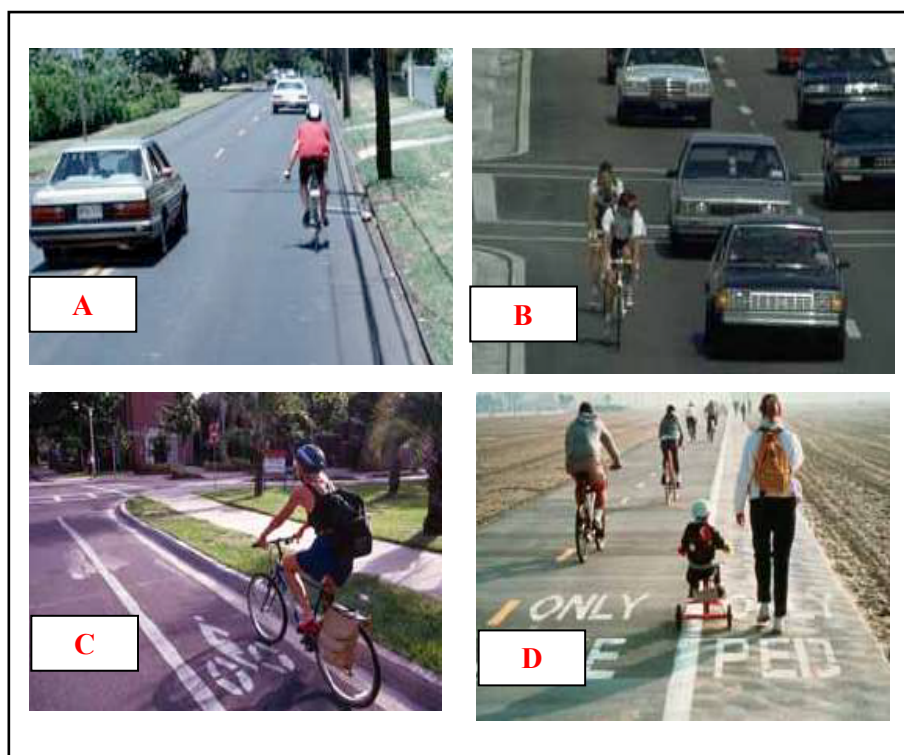

Figure 1. Four kinds of ways to support urban cyclists
(source: The 2012 AASHTO Bike Guide: An Overview)
Urban cycling support facilities are based on two (2) variables, namely:
- daily traffic volume (LHR) and
- vehicle speed 85 percentile.

Daily traffic volume is the number of vehicles that pass a certain point or line in one day, while the 85th percentile speed is the speed of traffic where 85% of drivers drive their vehicles on the road without being affected by lower traffic speeds or bad weather[11]. In other words, the 85th percentile speed is the speed used by 85 driver percentiles which are expected to represent the speed that is often used by drivers in the field[12]. The purpose of using these variables is to determine the ideal speed limit on a road section that is reviewed based on the average speed of the vehicle.

AASHTO (American Association of State Highway and Transportation Officials) in its book The 2018 AASHTO Bike Guide: An Overview, classifies three categories of cyclists who are recommended to be able to cycle on the highwayusing urban biking support facilities (table 1)[13].

Table 1. Three categories of cyclists (source: The 2018 AASHTO Bike Guide)

CYCLER	CITY CYCLING FACILITIES			
	SR	WCL	BL	SP/L
Advanced (A)	√	√	√	√
Basic (B)		√	√	√
Children (C)				√

Therefore cyclists are recommended to be able to cycle in facilities that fit their category.Some cyclists are included in the C (Children) category " Interested but concerned", even though age-wise they can be considered as no longer children. The B (Basic) cyclist is the "Somewhat confident" type of cyclists,and the A (Advanced) category is the "Experienced and confident" type (figure 2).

Figure 2. Three types of cyclists, A (blue); B (yellow); C (white)
(source: The 2018 AASHTO Bike Guide)

In the end, the originally functional bike then turned into a lifestyle. Changes in community interest in travel occurred within a decade, namely with more demands for variations in the needs, types, and patterns of travel.Special interest tourism now places more emphasis on environmental and social aspects that have given birth to "humanization of travel"[4]. The concept of tourism by using a bicycle is developing quite rapidly because it is necessary to pay attention to the packaging of bicycle tourism products as well as tourism supporting facilities and infrastructure that are following the needs and desires of cyclist tourists[1]

Formularization of The Problem and Research Purposes

The issues faced by urban communities regarding activities related to cycling sport and tourism are :

1. The need for sport while traveling for urban communities
2. Limited time and place to exercise and socialize with the environment for urban communities
3. Problems with traffic congestion and wasteful transportation costs in urban communities

To overcome the problems mentioned above, the research developments carried out are :

1. Develop a strategy to meet the needs of sports and tourism in urban communities based on the motivational characteristics.
2. Develop strategies to solve the limitations of time and place to exercise urban communities, and be able to socialize more with the environment based on the characteristics of motivation.
3. Develop strategies for solving traffic congestion problems and wasteful transportation costs for urban communities based on their motivational characteristics.

Then, the result issues of this research are:

1. Can be used for other research purposes, such as research into regional development, or research into other motivational characteristics of urban communities.
2. Can be applied to the sports activities of other urban communities.

METHODS

Methodology, Population, and Sample of Research

This research had used qualitative methods, descriptive phenomenology, and primary data collected by purposive sampling survey, on-random with google questionnaire during August 2019, involving two urban cyclists community as a population, while secondary data from literacies reviewed by a systematic method (meta synthesis). TOC is a community of urban cyclists specializing in Trifold brand folding bicycles, while JGC-SCAM is an urban and cross-country cyclist based in Serang-Cilegon-Anyer-Merak-Pandeglang with their daily activities in Jakarta and its surrounding areas. TOC (Trifold Owner Community) and JGC-SCAM (Jaserco Goweser Community-Serang-Cilegon-Anyer-Merak) decided as primary interviewees by considering to further increase the chance that the research objectives can be represented, specifically : getting an overview of the reasons for cycling, expectations, goals and obstacles faced. In general members of the TOC and JGC-SCAM bicycle community have criterias as follow:

- Allocating time to use the bicycle in daily activities and special activities (weekly, monthly, etc)
- The majority of association members live in big cities (the capital of the state/province/district/city)
- The TOC bicycle group was chosen by reasons it is a community of folding bicycle owners, which are practical to use and suitable for urban conditions. With this folding bicycle, cyclists can easily perform fast mobility, moving from one mass transportation mode to another mass transportation supported by their folding bicycle. In addition, the price of this "Trifold" folding bike is also quite affordable when compared to other brands (with prices 4-5 times that), thus making it more possible for people to own it. The impact of this is that the "Trifold" - TOC folding bicycle community has a more diverse demographic of research sources and is more representative of the urban community.
- The JGC-SCAM bicycle group was chosen because it is a fairly unique cycling community, it does not require the type of bicycle it owns, consists of workers who live in the Serang-Banten area and its surroundings, from various professions and backgrounds as well as doing

activities around the capital city of Jakarta. This community usually carries out activities on weekends or during holidays by cycling through areas outside urban areas, hills and mountains, rural areas, rice fields to coastal areas in the Serang-Cilegon-Anyer-Merak area. In addition, this community is seen as quite representative as primary data because members of this community are involved in daily activities in the capital, generally do not have time to do sports, but in the afternoon they return to the Serang area which is relatively less busy in the capital city.

The population is the area of generalization consisting of objects or subjects that have the quality and characteristics set by the researcher aims to be studied which will then be drawn conclusions[14]. The population of the two communities that mentioned above consists of the following table:

Table 2. The population of the research community

The Name of The Bicycle Community	Number of Active Members (In Whatsapp Group)
TOC	253 persons
JGS-SCAM	22 persons
Total Population	275 persons

The sample is part of the number and characteristics possessed by the population(14), then we calculate the number of samples needed by using the Slovin formula with an error rate of 10% is[15] :

$$n = \frac{N}{1 + N(e)^2}$$

Where :
  n = sample size
  N = population size (275 persons)
  e = error tolerance (10%)

By using the Slovin formula as above, the sample size can be determined as follows :

$$n = \frac{275}{1 + 275(10\%)^2}$$
$$= \frac{275}{1 + 275(0.01)}$$

$$= 73.333 \sim 74 \text{ persons}$$

Therefore, the minimum number of samples needed in this study was 74 persons.

Variables, Instruments of Research and Data Analysis Method
The variables and instruments in this research were compiled from the results of literacy and observational studies (as secondary data), before being distributed in the form of an online Google questionnaire to urban cyclist respondents, as a example of the urban population (table 3).

Table 3. Type, collection techniques and source of data

Data Type	Data Collection Techniques	Data source
Primary Data		
Identify the typology of urban cyclists.	Survey by Google Questionnaire	Members of the TOC and JGC SCAM bicycle community
Identification of internal and external factors, description of the external-internal environment.	In-depth interview	Questionnaire result, in-depth interviewing members of the TOC and JGC SCAM
Secondary Data		
Literature and observation studies	Secondary data systematic review-meta synthesis which affect to research	Books, proceedings, thesis, dissertations, handbooks, in-depth observations of the behavior of urban cyclists

The research criteria reviewed as secondary data :

1. Research that has been in the past ten years and has been published to the public can be in the form of journals, undergraduate theses, theses, dissertations, or scientific articles.
2. Relating to the topic of outdoor sports, urban community sports activities, urban community tourism activities, and the phenomenon of tourism activities.
3. Quantitative and qualitative methods.

Secondary data is data that has been further processed and presented by other parties, such as in the form of tables, diagrams and descriptions[15]. Six previous research results as secondary data in this study are described in table 4 as follows:

No	Type and Title of Research	Year	Location	Research Purpose	Research Method	Analysis Type
#1	Journal: Comparison of the effects of indoor and outdoor sports on stress levels of Med.Fac students. Diponegoro University	2018	Semarang	Identification of stress reduction with indoor and outdoor sports	A quasi-experimental design with pre-test and post-test sample group design (Quantitative)	Statistical analysis of unpaired t-test and min-mean test of outdoor sports
#2	Book Chapter: Jakarta Urban Lifestyle and Popular Culture (Case Study The Color Run CIMB NIAGA)	2016	Jakarta	Outdoor sports as a lifestyle and social phenomenon in urban communities	Qualitative phenomenology	Descriptive analysis
#3	Journal: The Potential of Bicycle Tourism Development in Bandung City Based on Perceptions &	2016	Bandung	Development of cycling tourism activities, urban communities need packaging, based on characteristics,	Qualitative, Survey	Descriptive analysis and descriptive statistical

	Preferences of Tourists			perceptions, and preferences of cyclists		
#4	Undergraduate Thesis: Communication Strategy for Bicycle Group Activists "Tangerang Last Friday Ride"	2014	Tangerang	Urban community activity who wants to travel around urban areas, together with cycling enthusiasts.	Qualitative descriptive Method	Miles&Huberman inductive analysis
#5	Journal: Efforts to use bicycles as a mode of transportation in the City of Surabaya	2011	Surabaya	Revitalizing the use of non-motorized vehicles, reducing pollution & waste of transportation costs.	Qualitative, Observation	Descriptive analysis
#6	Article: Conceptualizing Special Interest Tourism—Frameworks for Analysis	2004	Global	To advance understanding the phenomenon of Special Interest Tourism (SIT) interactive system in the 21st century	Qualitative phenomenology, Observation	Descriptive analysis

Table 4. Sistematic review (meta synthesis) of previous research for secondary data

The results of the review of the above six previous research are as follows:

1. In research #1 (Journal) conducted by Adiono, et. al (2018)[2], can be described as follows:
   - Exercise is a stress release
   - Reducing stress can be done by exercising both indoors and outdoors
   - Outdoor sports can reduce stress better than indoor sports

   The similarities (interventions) between reference #1 and research conducted by researchers in this paper are: Outdoor sports activities.

2. In research #2 (Book Chapter) conducted by Widyatmoko (2016)[16], it can be described as follows:
   - Sports have also been considered as a lifestyle by some people
   - Running is a sport that is cheap and very easy.
   - Outdoor sports as a lifestyle and social phenomenon in urban society
   - Running in this era is a phenomenon of the transformation of function from exercise for health to exercise for lifestyle
   - The rise of community running activities has also invited several parties to organize running activities with various variations
   - Running itself has become a new healthy trend as well as a social phenomenon, as a means of self-existence.

   The similarities (interventions) between reference #2 and research conducted by researchers in this paper are: Outdoor sports as part of the lifestyle in urban communities.

3. In research #3 (Journal) conducted by Aquarita, et.al. (2016)[4], can be described as follows:
   - Development of cycling tourism activities in urban communities as an alternative means of transportation that is environmentally friendly, based on the characteristics, perceptions, and preferences of cyclists.
   - Development of off-road bicycle/mountain biking tours, thematic bicycle tours, cycling at certain locations, and touring bicycles are also required given the presence of urban communities who enjoy this type of bicycle tourism.

- The availability of adequate facilities for cyclists will support tourism activities in urban areas
- A safe and comfortable cycling atmosphere is expected to attract tourists to take a bicycle tour.

The similarities (interventions) between reference #3 and research conducted by researchers in this paper are: Popularizing cycling tourism for urban communities in urban, thematic, and natural cycling areas.

4. In research #4 (Thesis) conducted by Sastrapraja (2014)[17], it can be described as follows:
   - Activities of urban people who want to gather and travel together as fellow cycling enthusiasts regardless of the type of bicycle, around urban areas, for a certain period.
   - Implementing strategies in the implementation: Knowing Audiences, Formulating Messages, Establishing Strategic Methods (Redundancy, informative, persuasive, and educational), Selection and Use of Media.
   - A good communication strategy is needed because this activity is carried out without registration and a group leader. In other words, this is a spontaneous activity based on the common need for urban community sports while socializing.

The similarity (intervention) between reference #4 and research conducted by researchers in this paper is: Urban outdoor sports on bicycles in urban areas

5. In research #5 (Thesis) conducted by Sulistyo, et. al (2011)[18], can be described as follows:
   - Increase in the number of motorized vehicles every year but not balanced with the appropriate load capacity.
   - The area/road will be near saturation due to an unsustainable transportation system.
   - The use of bicycles as public transportation is still constrained.
   - The lack of special bicycle lanes and bicycle parking lots makes bicycle users feel less safe when riding a bicycle so that there is a need for realization of special bicycle lanes and bicycle parking lots.
   - Revitalizing the use of non-motorized vehicles, to reduce congestion and the use of bicycles to be an attractive option because of their low operating costs and can manuver between other vehicles.

The similarities (interventions) between reference #5 and the research conducted by researchers in this paper are: The use of bicycles and lanes in urban areas to revitalize the use of non-motorized vehicles.

6. In research #6 (Article) conducted by Trauer (2003)[19], it can be described as follows:
   - Special Interest Tourism (SIT), is an interdisciplinary system in the tourism industry, which consists of the supply and demand of tourists, as well as media conceptualized as the main influence of tourism in the 21st century. The whole thing is covered by the environment (local to global which consists of politics, economic, ecological, technological, and socio-economic and socio-cultural issues, at the local to global level),
   - "Special interests/tourism activities" such as sport, wine, culture, painting, adventure, opera, battle-fields Tourism, or by geographical tourism area (eg Asia, Europe) of interest and/or affinity tourism groups (Seniors, women, hobbies, etc).
   - SIT as a supply of tourism product, was seen as a `` prime force in the expansion of tourism '' (Read, 1980., cited in Hall & Weiler, 1992, p. 5) with the product range has expanded from that of a boutique product to a mainstream offering.

- SIT as a demand of tourism product, point towards people's desire for quality of life and escape from the " pluralization of lifeworlds ", and " rationalization of contemporary urban life " as major push factors and motivators for travel (Giddens, 1999; Habermas, 1987; Horne, 1994; Rojek & Urry, 1997).
- According to the World Tourism Organization (1985, cited in Hall & Weiler, 1992, p. 1), tourism consumption patterns reflect the increasing diversity of interests of the late-modern leisure society with `` SIT '' having emerged, reflecting the new values which include `` increased importance of outdoor activities, awareness of ecological problems, educational advances, aesthetic judgment and improvement of self and society ''.
- Tourism image creation with media, by using tourism brochures, magazines, books, film, and television, all are media for the creation of images that fashion desires, wants, and needs, creating anticipation and a way for tourists to envisage themselves in place and action. (Ateljevic & Doorne, 2002; Coulter, 2001; Hlavin-Schulze, 1998a; Kim & Richardson, 2003; Markwick, 2001; Nielsen, 2001; Wickens, 2002).
- Media pervades every intimate human space and thus can influence value creation, beliefs, and attitudes (Trauer, 2002). It generates a possible cognitive and affective response knowledge of, and familiarity with the activity and places within which it occurs, and emotive response to those activities.

The similarities (interventions) between reference #6 and research conducted by researchers in this paper are: Urban community sports activities as part of special interest tourism (SIT) and involving media contributions.

Thus, the research instruments in the questionnaire has been determined from variables, where these variables are the result of the development of a secondary data systematic review (previous research). These three variables are related to demographics (respondent's personal data), bicycles (ownership, reasons and duration of the hobby of cycling) and motivation of cyclists.

Questions in the questionnaire consist of three integrated parts. The first part (A) questions about the respondent's data, the second (B) question regarding the relationship of the respondent to the bicycle, and the third (C) questions regarding the respondent's motivation towards cycling issues. This research questionnaire is a descriptive statistic, namely to be able to understand, describe, explain data and events collected through the research and investigation process, and do not generalize or draw conclusions about the population researched.

In the analysis of the research data, interactive is compiled using the Miles, Huberman, Saldaňa's analysis model[20], which consists of four interrelated components, namely data collection, data condensation, data display, and drawing/verifying conclusions. This data analysis model is to implement continuous extracting of information so that the resulting data can be filled properly and to produce data saturation. The four data interaction models are illustrated as follows:
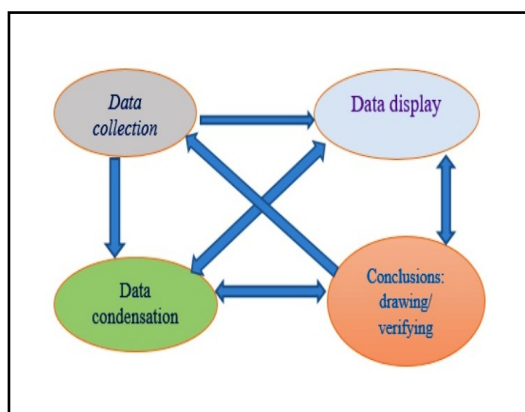
Figure 3. Interactive data analysis model by Miles, Huberman, Saldaňa (2014).
(source: Qualitative data analysis, a methods sourcebook-modified)

The primary and secondary data collection stages have been carried out previously as described in table 3 and 4, henceforth the data is processed at the condensation, display, and conclusion stages. Data condensation in question is the process of selecting, focusing, simplifying, abstracting, and transforming. Data presentation is the arrangement of condensed information so that conclusions can be drawn. The conclusion is the process of interpreting the data collected, patterns, and explanations. Thus the conclusion is evidence of the research conducted.

In inductive qualitative research, the analysis is presented out based on the data obtained and does not formulate a hypothesis, but instead, it is expected to find a hypothesis. Furthermore, the hypothesis found must be tested by researchers with a quantitative approach[14].

The development strategy in this research will be formulated with a SWOT analysis, which is a method to help structure potential effectively and organize a strategic analysis of internal and external environmental factors, by first determining the internal factor matrix (IFAS) regarding strengths, weaknesses and external (EFAS) regarding several opportunities and threats factors.

Table 8. Score and rating for IFAS-EFAS matrix
(source: Rangkuti, 2016)

Weight	Note	Rating	Note
> 0,2	Very strong	4	Major strength
0,11 – 0,20	Above average	3	Minor strength
0,06 – 0,10	Average	2	Minor weaknesses
0,01 – 0,05	Below average	1	Major weaknesses

Observations and in-depth interviews were implemented out on the results of the questionnaire and organized to members of the urban cyclist community in this research, so that it would yield some internal factors (IFAS) strengths and weaknesses as well as external factors (EFAS) opportunities and threats.

Table 9. SWOT analysis matrix

Internal Factors ╲ External Factors	Strength/S	Weaknesses/W
Opportunities/O	1. 2. } SO Strategy 3.	1. 2. } WO Strategy 3.
Threats/T	1. 2. } ST Strategy 3.	1. 2. } WT Strategy 3.

Determination of the rating and weight values on the IFAS and EFAS matrixes is based on the influence of these factors on the strategic position, which in this research are the trail of cycling, the urban area and its environment[21].

As described in table 8 above, the rating for each factor is given with the highest scale of 4 to the lowest scale 1. While the determination of the weight of each of these factors starts from the highest score scale of 1.0 (for the most important factors) to the lowest score of 0.0 (for insignificant factors) : A total score of each factor is equal to 1[22].

The formulation of a development strategy is an integrated formulation of internal and external factors. Four strategies are chosen, they are SO (Strength-Opportunities), ST (Strength-Threats), WO (Weaknesses-Opportunities), and WT (Weaknesses-Threats) strategies as shown in figures 4 and 6 below.
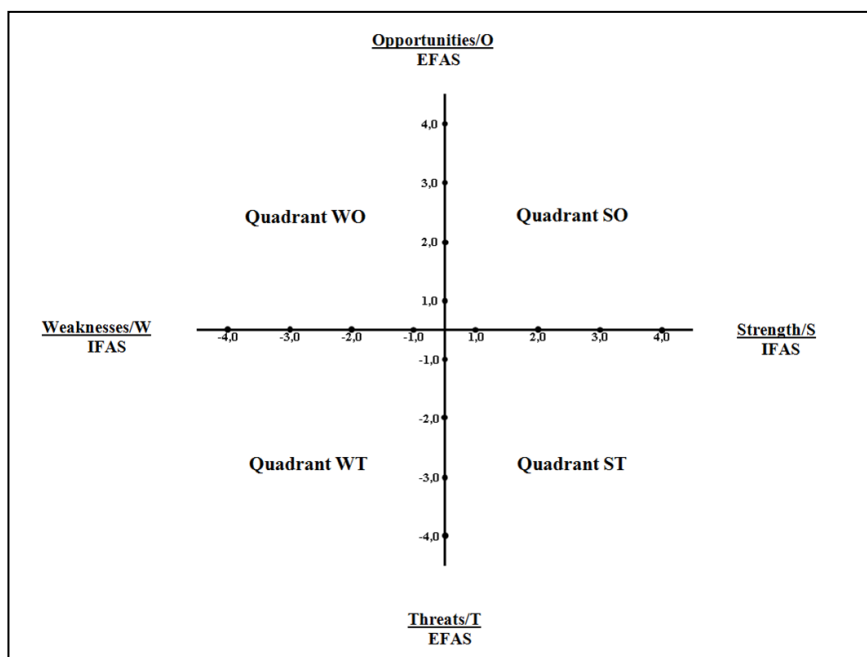

Figure 4. SWOT space matrix

All stages of the research and the methods used are summarized in the following flow chart:
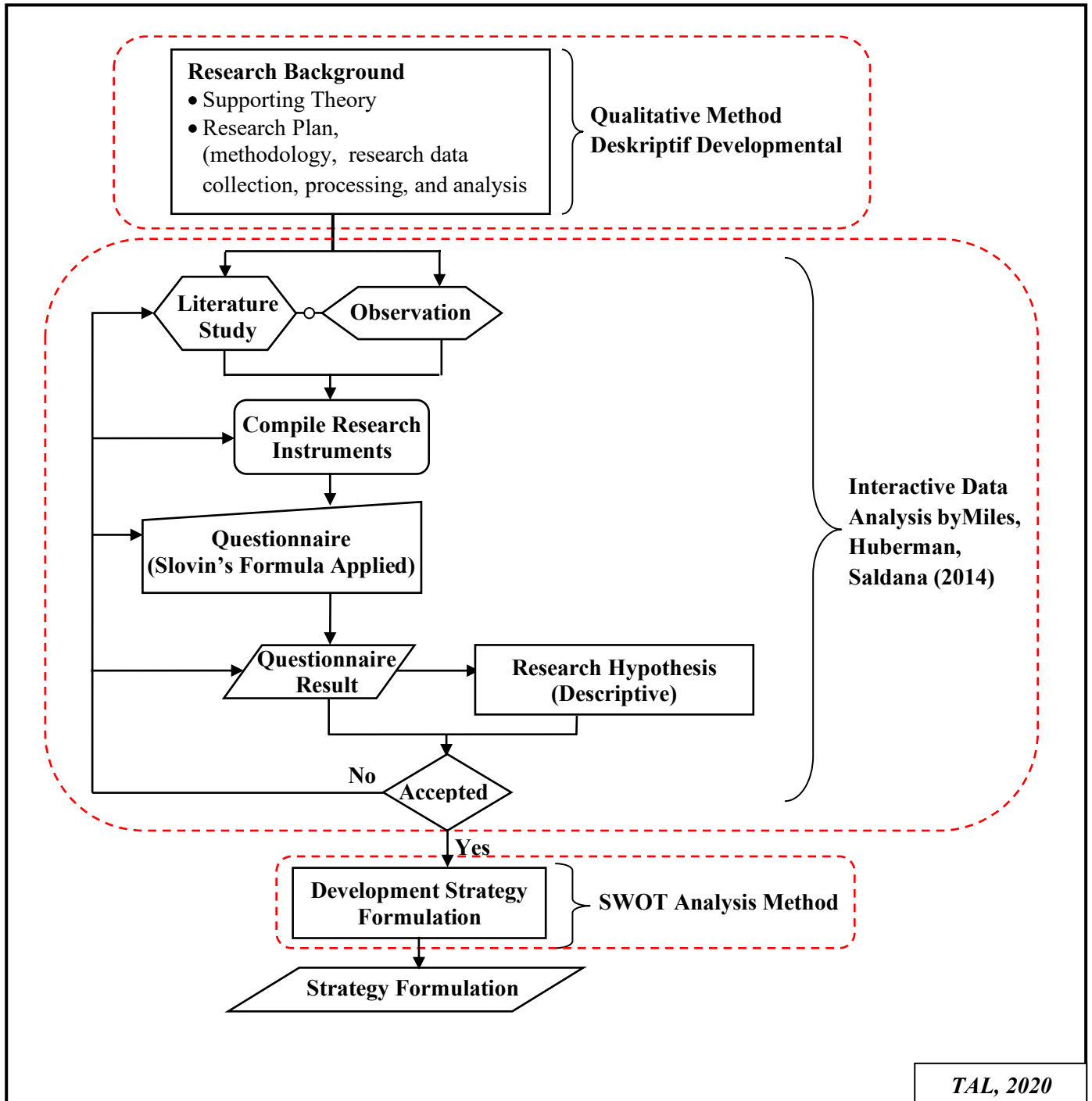

Figure 5. Research flow chart

RESULT

Google online questionnaire results

The Google online questionnaire that was distributed in advance to respondents in the Trifold Owner Community (TOC) and Jaserco Gowes Club / Serang-Cilegon-Anyer-Merak (JGC-SCAM) bicycle group overall received 102 respondents.The result of part A questionnaire consists of information on sex; age range; dwellings; and profession of the respondents as described in the following table. And so the pie charts of the age range and dwellings distributions are presented here as follows :

Table 10. Result of questionnaire part A

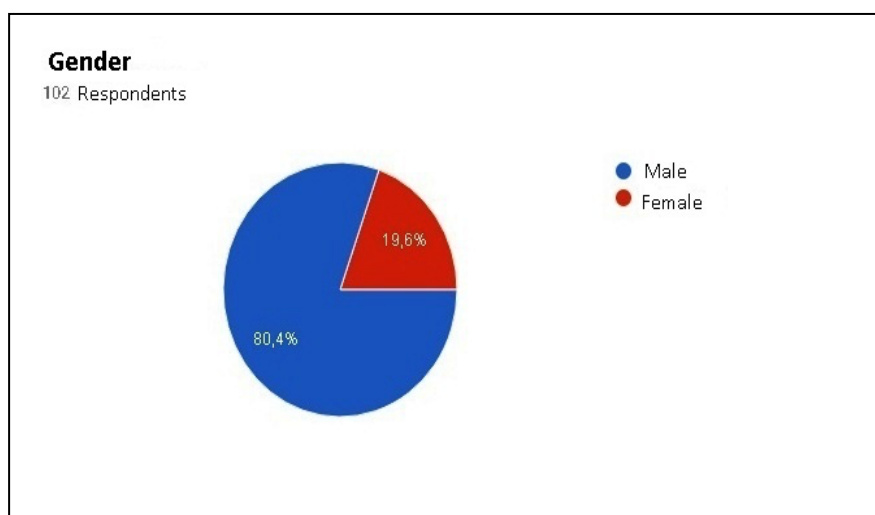| PART	NO	RESULTS				
		Respondent Data				
	1	Sex				
		A.Male**(80.4%)**	B.Female**(19.6%)**			
	2	Age (years)				
		A.Ages< 20 **(3.9%)**	B.20 ≤ Age ≤ 30 **(26.5%)**	C.30 <Age < 40 **(25.5%)**	D.40 ≤ Age ≤ 50 **(37.3%)**	E.Age> 50 **(6.9%)**
A	3	Activity				
		A. Entrepreneurs **(8.8%)**	B.Prv.Employee **(47.1%)**	C.G.Employee **(18.6%)**	D.Mil/Pol/Etc **(19.6%)**	E.Professional **(5.9%)**
	4	Domicile & Resident				
		A.The Nation's Capital **(37.3%)**	B.Provincial Capital **(14.7%)**	C.The Capital of Resident **(41.2%)**	D.District / Rural **(5.9%)**	E. Abroad **(1%)**

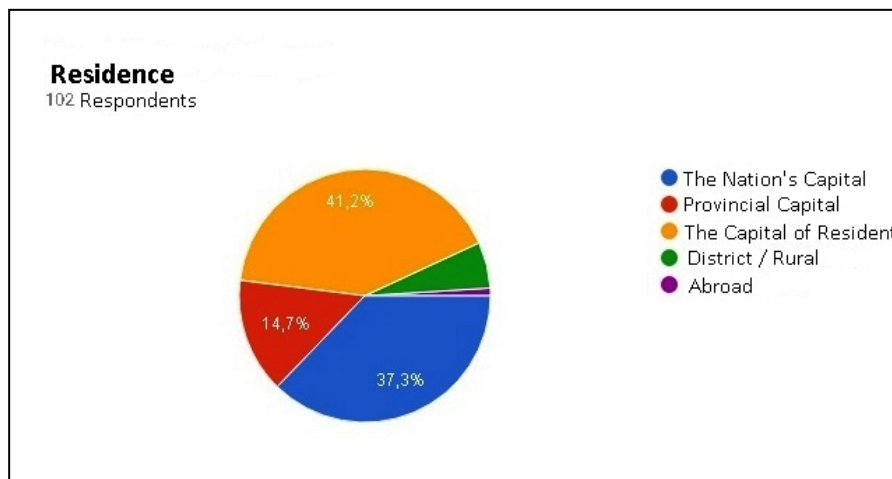Figure 6. The age range of respondent

Figure 7. Residence distribution of respondent

Then the result of part B questionnaire would be presented : as follows (Table 11), including the pie chart depicting the reasons for riding a bicycle.

Table 11. Result of questionnaire part B

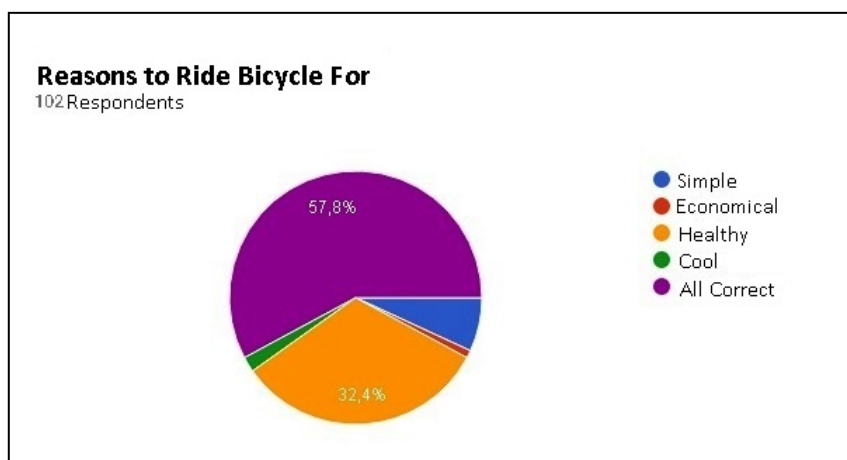| PART	NO	RESULTS				
		Bicycle				
	1	Cycling hobby (CH) since				
		A.CH < 1yr **(17.6%)**	B.1yr ≤ CH < 3yrs **(17.6%)**	C.3yrs ≤ CH < 5yrs **(14.7%)**	D.5yrs ≤ CH < 8yrs **(18.6%)**	E.CH ≥ 8yrs **(31.4%)**
B	2	Number of bicycles owned (BO)				
		A.BO = 1 **(38.2%)**	B.2 ≤ BO ≤ 5 **(53.9%)**	C.6 ≤ BO ≤ 10 **(4.9%)**	D.11 ≤ BO ≤ 15 **(2%)**	E.BO > 15 **(1%)**
	3	Reasons for riding bicycle				
		A.Simple **(6.9%)**	B.Economical **(1%)**	C.Healthy **(32.4%)**	D.Cool **(2%)**	E.All correct **(57.8%)**

Figure 8. Reason to ride bicycle of respondent

For the Part C of the questionnaire (consisting of C-1 and C-2) delivered on table 12, 13 and some pie charts, they are charts of the most desirable expectations after bicycling, favorite destination when cycling in a group, cycling problem in cities and the most habit cyclers do when cycling in natural environments.

Table 12. Result of questionnaire part C-1

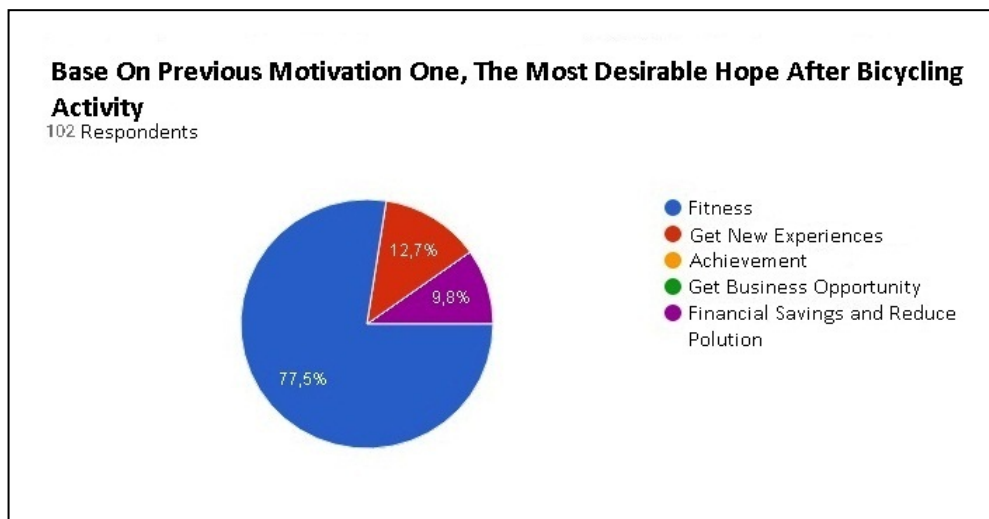| PART	NO	RESULTS				
		Motivation				
	1	Your motivation to ride bicycle				
		A.Sport& Exercise **(49%)**	B.Travel **(1%)**	C.To explore new areas **(2%)**	D.Save money &GoGreen **(4.9%)**	E.All correct **(43.1%)**
	2	Base on previous motivations, the most desirable expectations after bicycling activity				
		A.Fitness **(77.5%)**	B.Get new experiences **(12.7%)**	C.Achievement **(0%)**	D.Get business opportunity **(0%)**	E.Fin.saving&red.polution **(9.8%)**
	3	Favorite destination when cycling alone				
		A.Historical places **(8.8%)**	B.Natural places **(38.2%)**	C.Cullinary tour **(11.8%)**	D.Shoping tour **(2.9%)**	E.Routine activity places **(38.2%)**
C-1	4	Favorite destination when cycling in group				
		A.Historical places **(2%)**	B. Natural places **(47.1%)**	C. Cullinary tour **(37.3%)**	D.Shoping tour **(2%)**	E. Routine activity places **(11.8%)**
	5	Favorite cycling group				
		A.Family **(22.5%)**	B. Co-workers **(10.8%)**	C. Neighborhood **(12.7%)**	D. Bicycle group partners **(49%)**	E.Etc **(5%)**
	6	Interaction with local people, when cycling				
		A.Logistics share **(1%)**	B. Experiences share **(32.4%)**	C. Establishing cooperation **(13.7%)**	D. Enjoying local people facilities **(41.2%))**	E. All incorrect **(11.8%)**
	7	Bicycling problem in cities				
		A.Weak intention **(3.9%)**	B. Social / People **(3.9%)**	C. Infrastructure & Traffic **(63.7%)**	D. No clear rules for bicyclers **(11.8%)**	E.All correct **(16.7%)**

Figure 9. The most desirable hope after bicycling of respondent
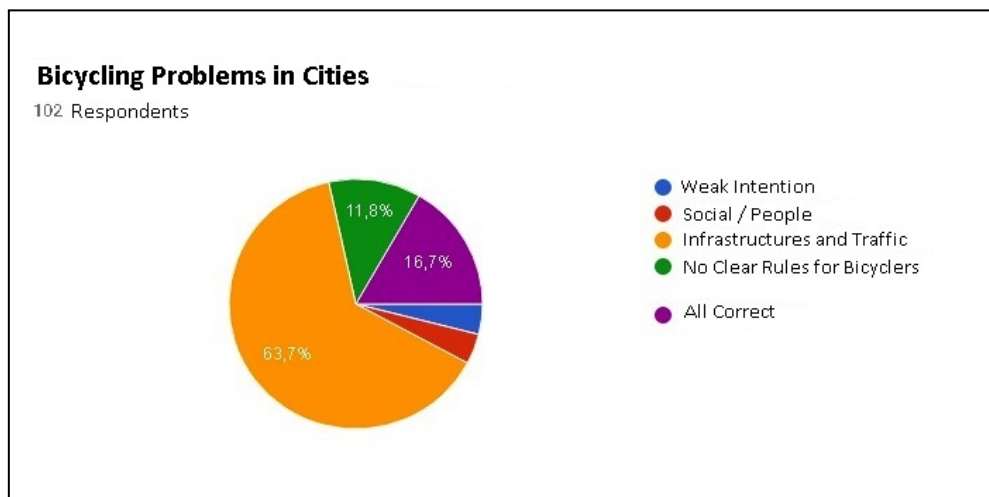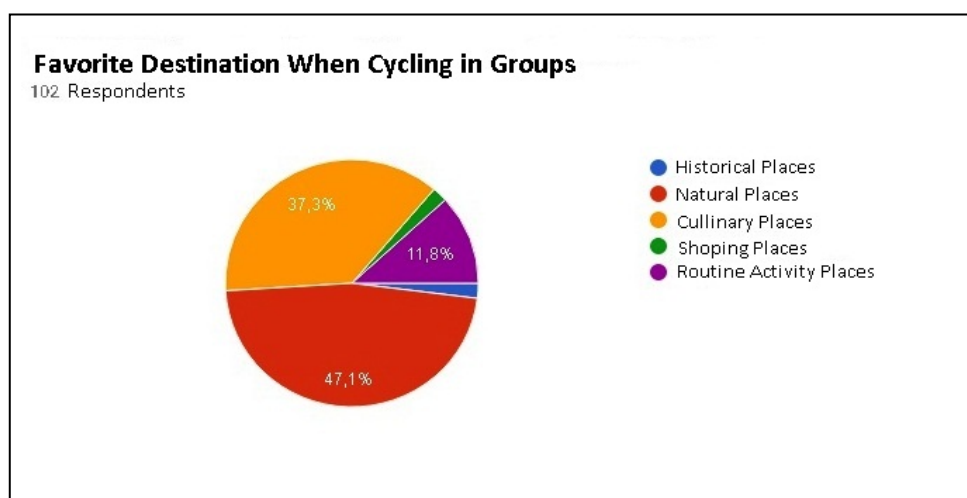

Figure 10. Biclycling problems in cities

Figure 11. Favorite destination of urban group cycler

Table 13. Result of questionnaire part C-2

PART	NO	RESULTS				
		Motivation				
C-2	8	Bicycling problems when in the villages, mountains, rice fields, out of city, etc				
		A. Bicycle damage (19.6%)	B. Financial cash problems (11.8%)	C. Physical-mental exhaustion (36.3%)	D. Nature & people condition (16.7%)	E. All correct (15.7%)
	9	The most habbit that often done when cycling in nature environment				
		A.Keeping the environment undisturbed without leaving traces of activity (57.8%)	B.Leave traces of activity (logistic, cigarette butt,etc) (2.9%)	C. Interact with local people (30.4%)	D. No interaction with local people (3.9%)	E. All are correct (4.9%)
	10	To keep environment clean anda comfort , the most suitable attitude for bicyclers				
		A.Active as environment ambassador personally (15.7%)	B. Avoid unclean tracks and environment (2%)	C. Conduct social work to keep environment clean and comfortable (10.8%)	D. Bicycling campaign (19.6%)	E. No littering (52%)
	11	Involving bicyclers to keep environment clean and comfort				
		A. Very much agree (79.4%)	B. Agree (18.6%)	C. Doubtful (2%)	D. Do not agree (0%)	E. Very much against (0%)

Figure 12. The most habit cycler when cycling in natural environment.

The summaries of the questionnaire, in-depth interviews, and observations of urban cyclists could be stated with a code to accommodate use in the later stages (Table 15).

Table 14. The summaries of the questionnaire, in-depth interviews, and observations of urban cyclists.

NO	SUMMARIES
1	Urban cyclists, demographically are productive age groups, which mostly consist of people in the age range of 40-50 years and 20-30 years, with most having as workers (private and government). The respondents'dwellings are mostly in the regency/ city capital, state and provincial capital.
2	Most of urban cyclists have been fond of cycling for more than 8 years by owning bicycles between 2 - 5.
3	The use of bicycles for urban cyclists furthers the attainment of physical fitness as a means of transportation to fulfill daily activities, and is also a means for tourism purposes, especially natural tourism.
4	The obstacles of cycling in urban areas are the supporting infrastructure, traffic conditions and the absence of clear regulations for cyclists.
5	The obstacles in cycling when crossing non-urban areas are physical, bicycle and financial conditions.
6	Enjoy cycling together with a favorite group, interact with the social environment that is crossed by the cycling track
7	The majority of urban cyclists perform solo cycling to get to their daily activities. Group cycling is undertaken when you want to travel and tourism, but both types of cycling can be carried out on every occasion. The obstacles of cycling when crossing non-urban areas are physical, bicycle and financial conditions.
8	The favorite tourist destinations of urban cyclists are places with natural nuances (adventure; natural tourism), and urban tourism (culinary tourism, history-culture).
9	Most urban cyclists are very concerned with maintaining the condition and beauty of the destination's environment and the lanes that cross it.

The hypothesis which is generated from this qualitative research is the initial hypothesis and could be tested by quantitative methods. In this research the hypothesis testing process is not carried out, it only first appearance hypothesis (Figure 13).

Determination of Internal and External Factors
In-depth interview, observations and study were made on the urban cyclist group members, the results of questionnaire, hypothesis and its coding above, to find several internal factors consisting of strengths and weaknesses as well as external factors consisting of opportunities and threats so that it can be described in the matrix in following below (Table 15 and 16). Determination of rating and

weight values are based on the influence of these factors on the strategic position (Cycling trail, urban area and environment). Ratings for each factor are given on a scale of 4 to the lowest 1.
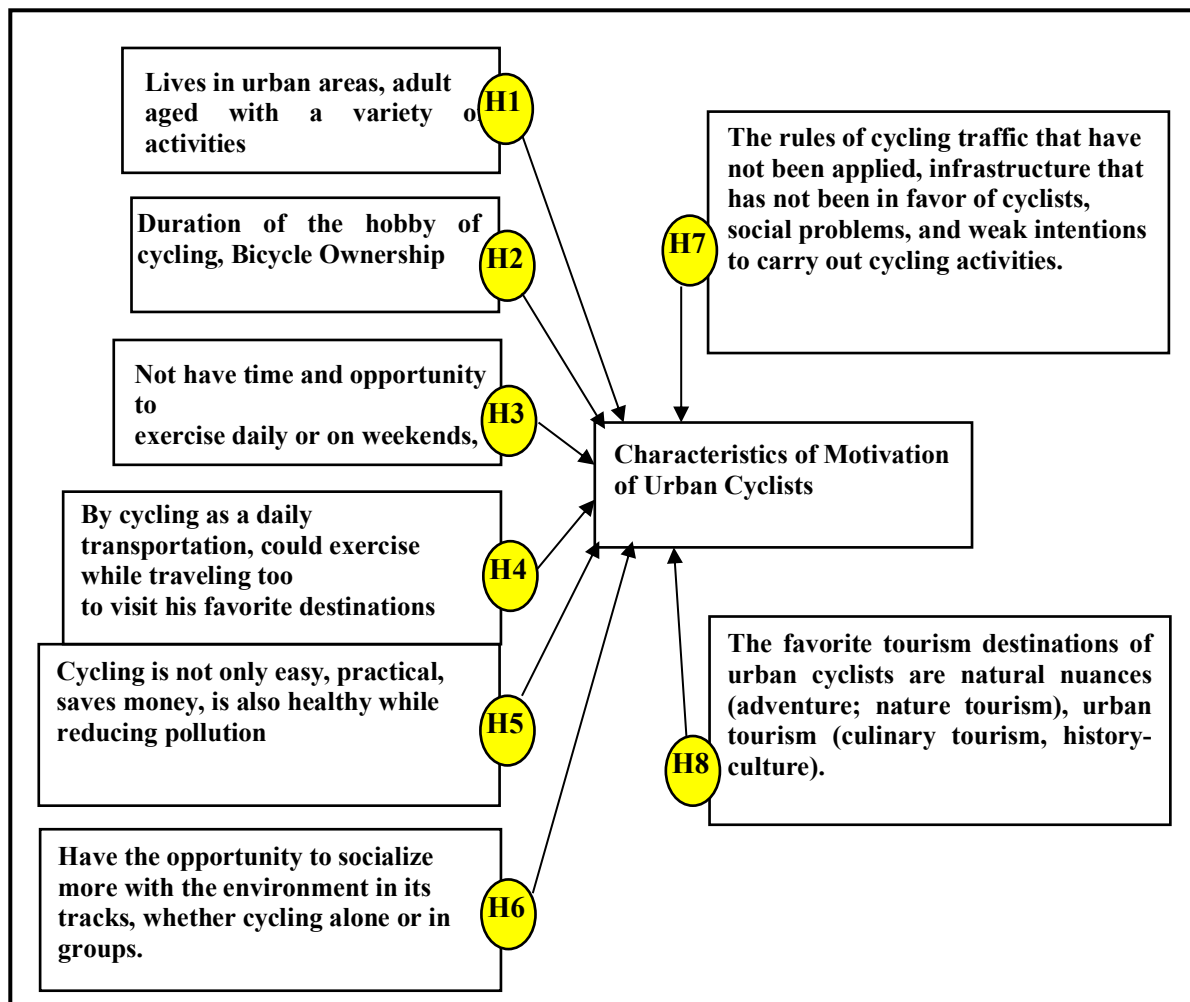

Figure 13. Conceptual Framework for Hypothesis
(addapted from :Bostick, S. L., 1992[23])

Table 15. IFAS Factors

No	Dominant External Factors	Rating	Weight %	Weight x Rating
	OPPORTUNITIES			
1	Cycling event in collaboration with certain parties.	4	0,15	0,60
2	Establish cycling tracks across urban areas, villages, forests, mountains, and beaches.	4	0,18	0,72
3	Business promotion activities for cyclists	3	0.15	0,45
4	Create new urban cyclist groups	2	0,08	0,16
5	Interaction with communities in the area crossed by bicycle tracks	3	0,10	0,03
6	Making cycles shelters in areas crossed by cycling tracks	4	0.16	0,64
7	Environmental management for the cycling track area	4	0,18	0,72
	TOTAL		1,00	3,76

Table 16. EFAS Factor

No	Dominant External Factors	Rating	Weight %	Weight x Rating
	THREATS			
1	Low interest of certain parties to work together	3	0,12	0,36
2	Safety disturbances and discomfort on the cycling track	4	0,18	0,72
3	The price of bicycles tends to be higher	2	0.07	0,14
4	Declining interest in cycling urban cyclists	2	0.10	0,20
5	Traffic rules that disadvantage cyclists	4	0.18	0,72
6	The infrastructure that disadvantages cyclists	4	0.18	0,72
7	Too many shelters on the tracks crossed by cyclists	3	0,17	0,51
	TOTAL		1,00	3,37

Table 17. Determination of the position and area of the quadrant strategy

Description	IFAS		EFAS	
	Strength (S)	Weaknesses (W)	Opportunities (O)	Threats (T)
Weight x Rating	3.85	2.98	3.76	3.37
Difference	S - W = 0.87		O – T = 0.39	
Area of Quadrangle SO (Unit Area)	3.85		3.76	
	S x O = 14.476			
Area of Quadrangle ST (Unit Area)	3.85			3.37
	S x T = 12.975			
Area of Quadrangle WO (Unit Area)		2.98	3.76	
	W x O = 11.205			
Area of Quadrangle WT (Unit Area)		2.98		3.37
	W x T = 10.043			

From table 17, the coordinates position of IFAS and EFAS matrixes could be plotted in the following space coordinate system.
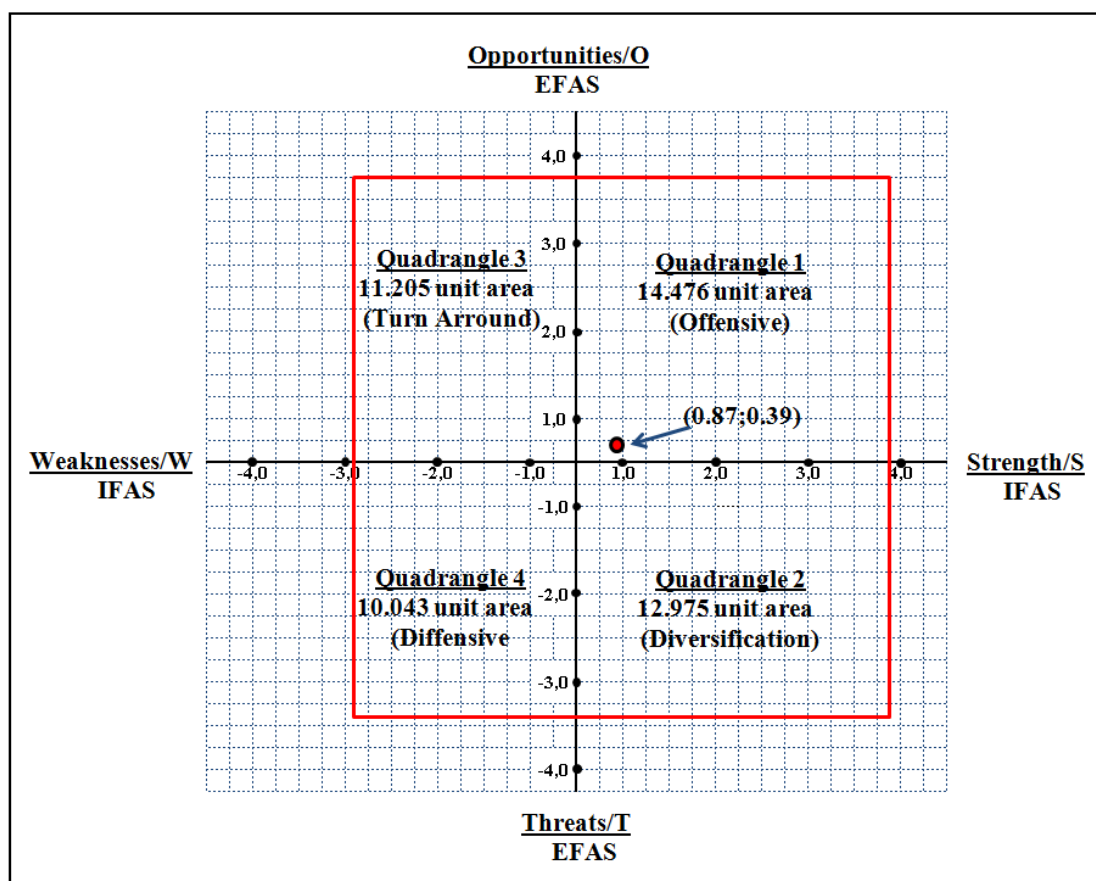

Figure 14. The space system of SWOT analysis

Then, some cycling strategies for urban cyclist communities could be determined by producing the combination of strength-opportunity factors, the strength of threats, weaknesses, and weaknesses of threats. Analysis of combinations as mentioned first previously described in the next table below (SWOT analysis system).

Table 18. Swot analysis system table

Internal Factors / External Factors	Strength/S	Weaknesses/W
	SO Strategies (Offensive)	**WO Strategies (Turn Around)**
Opportunities/O	1 Conduct a marathon cycling event involving various group cyclists and solo cyclist in various types of stages ranging from urban, forest, rural, coastal and other types of stage	1 A cycling relay event using the same bicycle.
		2 Invite the regulation maker and traffic forces to cycling together routinely.
	2 Discount cycling products for urban cyclists who reach certain mileage targets.	3 Proposed traffic rules for cyclists for the sake of comfortable and safe cycling
	3 Exchange of garbage collected by cyclists with fintech points (term and condition.	4 Facilitate the establishment of a legal group for cycling groups to stimulate interest in cycling, followed by partnerships with other businesses.
	4 Lucky circle photo event for cyclists photographed with a circle entitled to a prize.	5 Campaign for the benefits of sports and health effectively and sustainably.
		6 Provide a waste management facility in a place crossed by a track and a cycling shelter
	ST Strategies (Diversification)	**WT Strategies (Defensive)**
Threats/T	1 Cycling in groups when crossing areas that are prone to security problems	1 Monitoring track and cycling environment through communication with local communities
	2 Equip yourself when cycling with a security system	2 Utilize technology for monitoring track and cycling environment.
	3 Bicycle ownership program with a lightweight credit system	3 Select tracks and environments that are well known
	4 Interact with local people while crossing a cycling track	4 Cycle donation program from donors, for every kilometer the distance traveled by cyclists will be donated to people who need
	5 Sustainable socialization for safe cycling	

DISCUSSION

Systematic review-metha analysis is a form of secondary study that uses a well-defined methodology to identify, analyse and interpret all available evidence related to a specific research question in a way that is unbiased and (to a degree) repeatable[24]. Besides, the synthesis of research results: (systematic review: a meta-analysis, meta-synthesis) is also one part of the four hierarchies carried out in the method of presenting the facts of research results, where it is commonly used to determine a policy. In the policy process sequence, research results have the following roles or functions to help identify problems on the policy agenda, to help with problem solutions, to help policymakers to think of alternatives policy options (both regarding priority issues or solutions, and help justify a policy (decision)[25].

To provide facts for users (policymakers and implementers), researchers must not only be able to provide valid and comprehensive facts, but they must also be able to package these facts in a format that is easily understood by policymakers. A method is to package the results of the systematic review that has been carried out into the research questionnaire variables, which produce internal and external factors for the SWOT analysis.

Secondary data processing and analysis on the research results of Adiono, et. al (2018), Widyatmoko (2016), Aquarita, et.al. (2016), Sastrapraja (2014), Sulistyo, et. al (2011), Trauer (2003) and other observations describe the results that are used as input to the variables and instruments of this research. The description of the secondary data research is related to: outdoor sports activities as part of the urban lifestyle, thematic and natural cycling activities as part of the urban lifestyle, the existence of safe and comfortable cycling paths to increase the use of bicycles as motorized vehicles and cost-effective, as well as urban community sports activities as part of the Special Interest Tourism (SIT).

The research variables in the questionnaire are divided into three parts, as an initial idea to finding out the distribution of suitable concepts in the cycling activities of urban communities. The application of research variables in the questionnaire is a question about demographics and bicycles as a medium for the respondent's activity and the respondent's motivation to do cycling sports. From the results of data collection, it will be possible to add and reduce strategic elements in determining internal and external factors during the data processing stage.This is a part of the data condensation process[20].

The urban cyclist questionnaire participants were greater what was required and this exceeds the threshold of the minimum number of samples needed for this research. This becomes something positive and could boost confidence in the results of the questionnaire, although it could still be improved by applying smaller error tolerance limits.

In general, from the results of the three parts of the questionnaire above, the majority of urban cyclist members are of productive age, which during their busy life requires sports and recreation activities.This also allows them to be able to reduce stress due to traffic congestion, save expenses, and reduce environmental pollution.

Then, internal (IFAS) and external (EFAS) factors intended to determine the development strategy with a SWOT analysis, are formulated from a compilation of the results of a research questionnaire, in-depth interviews with urban cyclists, and the results early hypotheses. So that the IFAS and EFAS matrix contains concepts (Self, Like, Expectation, Unexpected) and categories (Identity, Hobbies, Habits, Hope, Love, Not the things to look for, The things to look for).

Calculations between the IFAS and EFAS matrixes produce coordinate points (S-W); (O-T) which have been plotted on the space matrix. The coordinates are located in the first quadrant, which is the offensive strategy quadrant with the widest quadrangle area.

The formulation of the SWOT analysis system table between internal factors (Strengths, Weaknesses) and external factors (opportunities, threats) yields four development strategies. The SO (Strength Opportunities) Strategy is the strategy that best suits the motivational characteristics of these urban cyclists. Due to it giving guidance to bring up and raise the interest of urban communities to use

bicycles in daily activities or other opportunities, while keeping the concern to preserve the environment (physical and social) which is passed by the cycler.

CONCLUSION

Systematic reviews will be very useful for synthesizing various relevant research results, so that the facts presented to policy makers become more comprehensive and balanced as mentioned by Siswanto in 2010[26].

Various research results that are relevant to the research conducted can be analyzed with a systematic review method, to be able to present more comprehensive and balanced facts to decision-makers.

With an understanding of the research and policy processes, it is hoped that the results of the research conducted will be utilized more optimally.

Cycling activities of urban cyclists are based on desire and motivation and realizing it to become a habit. Most urban cyclists are delighted when cycling due to elements of health, tourism, and pleasure when doing the activity, although it is still hampered by traffic rules and the lack of infrastructure facilities provided.

Inductive data coding will organize data with specific initial themes to more general data concepts, as part of the analysis of inductive qualitative research. Thus, interactive data analysis which is conducted through condensation of data and coding in each stage is done so that the resulting data are expected to be better organized, more systematic, and more convenient to perceive.

Development strategies resulting from this SWOT analysis could be implemented in any urban area as long as most residents feel the need to travel while exercising and there is concern from stakeholders. So that gradually the application of traffic rules and infrastructure in favor of cyclists will be more likely to be realized properly.

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