

# To Study the Impact of Bicycle Tourism on Health Conscious Travelers

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## ABSTRACT

The present study is carried out from the literature review and dependent and independent variables are identified for the research from the literature review. In the beginning I have gathered different literature reviews for the study and of bicycle tourism on health conscious travelers. Based on the literature review, the objectives have been framed and software has been utilized for the objectives.

The study is totally focused on the cyclists and I have selected the people with the age group from 16 years to 50 years'. This study is restricted to the areas in North Bengaluru. The methods used in the study are Hypothesis and Correlation. From all the methods, I have utilized KMO test, Descriptive analysis, Reliability Test, Total Variance tests for the research. From all the above tests, I have identified the relation between the variables which have been selected from the literature reviews.

The survey is conducted through framed questionnaires gathered from 52 respondents. From the responses gathered, I have done different tests like Correlation and framed Hypothesis tests. From the results, I have observed that the variables Environment and Attitudinal element showed more significant Co-Relation among the variables. The tests have displayed the relation for each dependent and independent variables separately.

## INTRODUCTION

Bicycle touring, as compared to other sport, commuting, or fitness, is the taking of self-contained riding vacations for enjoyment, adventure, or autonomy. Single-day journeys, multi-day trips, and even years of touring are all possible. Tours can either be booked by the participant or organized by a vacation company or group.

Netherland holds the record as the nation with the most bicycles per capita. Cycling is incredibly popular in Belgium where a number of important cycling races and events are held [1].

Cycling as a mode of daily transportation has attracted the attention of the transportation and environmental sectors due to a variety of advantages over motorized transportation [2].

The bicycle gained from the outdoor movement of the 1930s. The Cyclists' Touring Club advertised a week's all-in tour, staying at hotels recommended by cyclists. The youth hostel movement started in Germany and spread abroad, and a cycling holiday staying at hostels in the 1930s. Roderick Watson and Martin

Gray estimate there were ten million bicycles in Britain to one million cars [3].

Cycling is a great way to stay active while working out. It can aid in the development of a physically and mentally healthy lifestyle. Cycling is mostly an aerobic activity, meaning it works your heart, blood vessels, and lungs. It will help in breathing deeper, sweat more, and have a higher body temperature, all of which will improve your overall fitness [4].

Cycling is a low-impact aerobic workout with numerous advantages. It also has a range of intensities, making it suited for people of various skill levels. Cycling can be used as a form of transportation, a recreational pastime, or a competitive sport [5].

### Top countries with highest number of cyclists

- Netherland
- Denmark
- Germany
- Sweden
- Norway

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- Finland
- Japan
- Switzerland
- Belgium
- japan

### Types of cycling

The distances differ significantly. The rider often traverses 50–150 kilometres (30–90 miles) each day, depending on fitness, speed, and the number of stops. A small journey lasting a few days could cover as little as 200 kilometres (120 miles), whereas a longer tour could take you across the country or around the world [6].

### Bicycle touring encompasses a wide range of activities:

- Light weight touring

A rider, known colloquially as credit-card travelling, travels with the bare minimum of gear and a large sum of money. Overnight lodging is available in youth hostels, motels, pensions, and bed and breakfasts. Cafes, restaurants, and markets sell food [7-10].

- Ultra light vehicle

In contrast to credit card touring, the rider is self-sufficient and just brings the minimal needs with no frills [11].

- Fully loaded touring

Bicyclists carrying everything they need, including food, cooking tools, and a tent for camping, are known as self-supported touring. Some cyclists carry only the bare necessities, food, and a Bivouac shelter or a lightweight tent [12-15].

- Expedition touring

Cyclists travel a lot, often in underdeveloped countries or in rural locations. The traveller is largely self-sufficient thanks to the bicycle, which is filled with food, spares, tools, and camping gear [16].

- Mixed Terrain Cycle-Touring / Bike packing

Rough riding refers to cyclists who ride a single bicycle over a variety of surfaces and topography on a single route. Cyclists frequently take an ultra light camping approach and carry their own minimum kit, focusing on freedom of mobility and efficiency over a variety of surfaces (bike packing) [17].

- Supported touring

Cyclists are accompanied by a vehicle that transports the majority of their gear. This might be organized by a group of bikers or a commercial vacation company. These businesses sell tickets for guided tours that include pre-paid hotel, luggage transfers, itinerary planning, and, in some cases, meals and bike rentals [18].

- Day touring

The number of the group, the length of the ride, the purpose, and the methods of support all vary greatly. They can include single cyclists, small groups of bikers, or major organized rides with hundreds to thousands of participants. They can range in duration from a few miles to 100 miles (160 km) or larger

century rides. Riding for enjoyment or fitness, as well as raising funds for a nonprofit organization, are all possibilities. Self-supported day rides, trips supported by friends or small groups, and organized rides where riders pay for support and lodging given by event organizers, such as rest and refreshment stops, marshaling for safety, and sag services, are all examples of support methods [19].

## LITERATURE REVIEW AND PROBLEM FORMULATION

### Background Theory

The topic “To study the impact of bicycle tourism on health conscious travelers” has been taken on the basis of the statistics provided and in the present scenario bicycle tourism is increasing rapidly. So based on the interest and the information gathered, I have gathered different journals and articles which shows huge response on the bicycle tourism on health conscious travelers [20].

### Critical review of literature:

**Heesup Han, Bo Meng, Wansoo Kim (2017):** The research focused on the investigation of the role of bicycle tourism attributes, perceived value, satisfaction, desire, and gender in bicyclers loyalty generation process. The research was approached by Empirical Study. The study results have reveals the theoretical model explained a sufficient amount of the variance in loyalty. The author concluded that the research provides a useful foundation pertinent to how it forms perceived value satisfaction, and desire which are essential in generating bicycler’s loyalty [21].

**Begon Munoz, Andes Monzon, Elena Lopez (2015):** The research paper mainly sfocused on the key factors influencing bicycle commuting is essential for developing effective policies. This research has conducted mobility survey (based on the theory of planned behaviour) and exploratory factor analysis. The research result identified that the research has confirmed that in this context-safety and comfort issues are not the main barriers for all commuters. Still more progress should be made to normalize cycling [22].

**Begona Munoz, Andres Monzon and Ricardo a Daziano (2016):** The study focused on the promoting non-motorised active transport it has led to an increase in the number of studies to identify the key variable associated with bicycle used and especially those related to the bicycle mode. This study has conducted Comprehensive analysis and comparative analysis for survey. The study results have shown the incorporation of latest variables in bicycle choice models and latest variables have nowadays become the core bicycle mode choice models. Finally the author has concluded that the evolution has been fuelled by the advent of hybrid choice models and computationally effective estimators capable of determining the weight of psychological constructs [23].

**Sigal Kaplan, Dagmara K (2019):** The research study has focused on the relations between cycling habits, well-being and

positive mood and contributes to the formation of positive, physical, social and self-actualisation concepts. In this study Structural Equation Method (SEM) has conducted. The research results identified the study of highlight that there exists a positive relation between bicycle use, self- actualization on physical, psychological, social and self-efficacy dimensions and positive mood [24].

**Majumdar, Sudeshna Mitra (2015):** The study has focused on identifying different attributes that are directly or indirectly influence choice of bicycle as a mode of transport and critically analyse them based on the user response and expert judgement. Exploratory factory analysis (EFA) has conducted in this study. The result of this study has identified specific attitudinal attributes related to Physical factors, Psychological factors, Travel Time sensitivity, Economic aspects, and Congestion, Parking, Route or Link level facilities, Route topography. The author has concluded that the sub-factors, psychological factors, physical factors and safety concerns which are found to be important from both users and expert are perspective [25].

**Jose I. Castillo Manzano, Mercedes Castro Nuno, Lourdes Lopez Valpuesta (2015):** In this research author mainly focused on the gap about the interaction between both systems public bicycle/private bicycle and which are the key aspects to explain the bicycle-buying decision. Empirical framework has conducted on this study. The study identified the socio-demographic factors that favour the move from the public bicycle sharing system to the private bicycle [26].

**Trisalyn Nelson, Avipsa Roy, Colin Ferster (2021):** The research mainly focused on the developing a generalized approach to modelling bicycling ridership using Strava data. The result of this study has identified the generalized prediction of bicycling ridership on a road segment in concert with strava data should include: number of Strava riders, percentage of Strava trips categorized as commuting, bicycling safety, and income. Finally author has concluded that the predict values with the precision of a single bicyclist, modeled results should be communicated such as: Low, medium, and high ridership [27].

**Chun-Chu Yeh, Crystal jia-Yi Lin, James Po-Hsun Hsiao (2019):** The study focused on the leisure bike tourism, and the purpose of this study was to explore the influence of environmental quality on the demand for cycleways, and to estimate the effect of environmental improvement. Exploratory factor analysis, Contingent behaviour method (CBM) analysis has conducted on this study. The result of this study showed that the improvement projects increased the intended number of trips and the recreational benefits of cyclists.

**Jan Henrik Nilsson (2019):** The research study mainly focused on the study of conceptualised dynamics behind the development of urban bicycle tourism. In this study on-site observations and informal interviews analysis where used in this study. The research result identified evidence from the greater Copenhagen region is used to contextualise particularly these perspectives of the development of urban bicycle tourism. Finally the author has concluded that we need to look beyond only infrastructure, planning and regulations in order to understand the development of urban bicycle tourism.

**Heesup Han, Linda Heejung Lho (2019):** The study focused on understanding of cycling tourism research and the value of bicycles in tourism. Past decades analysis is used in this study. The study identified the cycling tourism has been popularized across the world for its high values on physical/mental health, social connections, entertainment and sustainability issues. Finally the author has concluded that cycling is definitely an emerging trend in tourism now, and it is definitely looking forward to a bright new future.

**Chu-Chu Yeh, James Po-Hsun Hsiao (2019):** This research is mainly focused on to evaluate the improvement effect and to identify the changes in quality variation that are associated with recreational benefits. CBM (contingent behaviour methods) and exploratory factor analysis where used in this study. The research results identified analysis extracted the major factorial dimensions of environmental quality, cycleway, including safety, lane design, environmental cleanliness, lighting facility and landscape. Finally the author has told and concluded that to improve the existing cycleways should not neglect the importance of lighting facilities and the surrounding landscape and for the planning of future cycleways.

**Shu-Wang Lin, Juei-Ling Ho (2020):** The study focused on The Behavioural tendency of the middle-aged and seniors in bicycle tourism at environmentally protected scenic areas. Measurement model is examined and average variance extracted (AVE) on this study. The result of this study showed two things first, when applying the TPB (Theory of planned behaviour) to different fields of the study and another finding is that subjective norm shows a higher level of susceptibility to sport habit and predictability to behavioural intention.

**Duangdao Watthanklang, Vatanavongs Ratanavaraha (2016):** The research has mainly focused on the motivational components and compares the different motivations for bicycle riding in various areas. CFA (Confirmatory Factor Analysis) has conducted in this study. The result of the study has shown that the analysis has helped to develop the most suitable strategies for promoting more bicycle use in each targeted area. Finally the author has concluded that the government sectors and other involved organizations should use these indicators to develop more precise and suitable policies to promote bicycle riding for targeted groups.

**Prof. Dr.Erol Duran (2018):** The study has focused to find out the importance that cycle tourists give and the level of the interest they show for cycle tours. Qualitative research has been conducted for this study. The research results has said that Developing cycling as a touristic phenomenon and as a philosophical item for city life in sustainability perspective can gain positive effects for the city and residents.

**Rosa Marina Gonzalez, Concepcion Roman and Angel Simon Marrero (2018):** The research has mainly focused to assess the attitudes of visitors towards the implementation of a public bicycle sharing system. Random Utility model, Econometric models, Linear Regression Model has been conducted in this study. Finally the author has concluded that Bicycle mobility could be packaged as an additional tourist attraction.

**Thomas Gotschi, Jan Garrard & Billie Giles-Corti(2015):** The study has focused on the health aspects of day-to-day cycling have gained attention from the health sector aiming to increase levels of physical activity, and from the transport and planning sector, to justify investments in cycling. Primary and Secondary data analysis has conducted on this study. The result of the study has shown that Safety improvements should be part of the efforts to promote cycling, both to minimize negative impacts and to lower barriers to cycling for potential riders. Finally author has concluded that health impact of cycling should play a central role in considerations about bicycle promotion.

**Hollands, Theresa M. Marteau & Paul C.Fletcher (2015):** The research has mainly focused on the investigations that target non-conscious rather than conscious processes to change health behaviour. Supplementary methods and Behaviour Associative Networks analysis has conducted in this study. The result of the study has shown that investigation to change health behaviours by the degree to which their effects may be considered non-conscious.

**Richard J Buning & Heather J.Gibson(2016):** The study has focused to explore the influence of travel conditions on preferred destination, event, and travel characteristics in the context of Active-Sport-Event Travel Carers among cyclists who travel to take part in events. SPSS 22.00 Statistics software and Qualitative data analysis were conducted on this study. The result of the study has found that travel preferences are more than outcome related to the travel conditions.

**Mainur Ordabayeva, Saira Yessimzhanova (2016):** The research has mainly focused on the tourism organisation and healthcare and wellness tourism. Primary and Secondary data analysis has been conducted for this study. The author has concluded that work-out on the brand-new approaches to sanatorium operations and most fully satisfy the needs of consumers.

**Bin Zhuo, Ting Liu, Chris Ryan (2020):** The study has focused on the impacts of bicycle sharing and the satisfaction of tourists. Exploratory factor analysis has conducted in this study. The result of the study has shown that this study suggests some bicycle sharing management strategies and recommendations to enhance tourist's usage satisfaction. Finally author has concluded to deficiencies with random cycle parking at some scenic spots and a lack of monitoring.

**D.Watthanaklang and V.Ratanavara (2019):** The research has mainly focused to seek for the factors promoting people to use bicycles. SEM (Structural Equation Modelling) analysis has been conducted in this study. The result of the study has shown that factors which include individual characteristics, attitudes and infrastructure affecting attention behavior. By using SEM can analyze the relation between latent variables and latent variables, as well as latent variables and observed variables.

**Jon Martin Denstadli and Harry Arne Solberg (2020):** The study has focused on the impact of the world road cycling championship on local residents, Physical activity and transportation mode choices. Triangulation and comprises data analysis has been conducted in this study. The result of the study has discouraging to organizers who expect that an international sport event will automatically increase physical

activity. Finally author has concluded that organizers cannot expect that an international road cycling event will have major impacts on residents' physical activity levels or contribute to more regular use of cycling as a transportation mode.

**Duangdao Watthanaklang, Vatanavongs Ratanavaraha a,n, Vuttichai Chatpattananan ,Sajjakaj Jomnonkwao(2016):** The research has mainly focused on the study to understand the motivational components and compare the different motivations for bicycle riding in various areas. CFA (Confirmatory Factor Analysis) has conducted in this study. The result of the study has shown that to mainly focus on 6 factors like: self-development, contemplation, exploration, physical challenge, Stimulus seeking and social interaction to motivate to ride the bicycle.

**Richard J Buning, Zachary Cole (2019):** The research has mainly focused on the study to explore the mountain bicycle demographics, travel preferences and travel behaviours. Exploratory and Descriptive research analysis were conducted in this study. The author has concluded that for the current study there is a need for theoretically informed research addressing mountain bicycle tourist.

**Enda Murphy, Joe Usher (2016):** The study has focused to analyses the impact of bicycle sharing scheme by using evidence from 360 questionnaires. The research has approached primary data. The result of the study shows that the present scheme is used predominantly by higher-income individuals; it has a different functionality during the peak and off-peak and has been indirectly successful at improving driver awareness towards cyclists. Finally the author has concluded that the expansion of the scheme beyond the central area may impact significantly upon modal shift from the car to cycling.

**Alexander Bigazzi, Kevin Wong (2020):** The research study has focused on the investigation of the mode substitution effects of electric bicycle. Meta-Analysis has approached in this study. The result of the study has shown that the electric bicycle adoption may be part of a transition away from conventional bicycle use, while displacing auto and transit travel after adoption.

**Sowier- Kaspezyk, Izabella Widawska-Stanis (2017):** The research study has focused to lower the negative influence of the tourism on the environment and develop a tourism influences on local employment. Primary and secondary data has approached in this study. The result of the study has shown that it has achieved by balancing needs of tourist with the needs of tourist destination.

- Identification of Research gaps
- Cycling tourism is not yet implemented in Indian tourism and it would take more time to be implemented in the future.
- Research questions the dissertations would like to address
- What are the major factors impacting on bicycle tourism on health conscious traveller
- Does the factors environment and social influence show more impact on bicycle tourism on health conscious traveller
- What are the important factors to be used to motivate the people who does bicycle tourism for health benefits.



## PROBLEM STATEMENT

### Title

To study the impact of bicycle tourism on health conscious travellers

### Aim

To conduct the study on impact of bicycle tourism on health conscious travellers

### Objectives

- To study and impact of cycling on health.
- To analyse the factors impacting bicycle tourism on health conscious traveller.
- To provide the recommendation and suggestions based on the derived results.

### Scope of Present Investigation

The main scope of the study is to identify the major factors impacting on bicycle tourism on health conscious travelers in North Bengaluru and to provide recommendations and valuable suggestions to the bicycle tourism health conscious travelers. Also to improve the health and environmental benefits by cycling who travel frequently?

### Methods and Methodology/Approach to attain each objective

**Table1:** Methods and Methodology

Objective No.	Statement of the Objective	Method of Methodology	/ Resources Utilised
1	To study and impact of cycling on health.	Literature of Review	Ebsco-Host
2	To analyze the factors impacting bicycle tourism.	Correlation, Factor Analysis	SPSS
3	To provide the recommendation and suggestions based on the derived results	Literature Review and Objectives Identified	Above all resources

## PROBLEM SOLVING

### Data Collection and Modeling

The study is carried forward based on the primary data collection with the survey conducted based on the questionnaires framed from the variables identified.

### Frame of Questionnaires and Planning of Survey

The questionnaires have been framed based on the variables identified from the literature reviews and I have utilised Likert scale i.e. 1-Strongly Disagree, 2-Disagree,

3-Neutral, 4-Agree, 5-Strongly Agree. The questionnaires were included Geographical Factors like name, age, gender, e-mail id, marital status etc. The questionnaires are framed according to variables and each variable consists of 5 questions.

### Sampling Technique

The samples gathered mostly from the people between the age group of 21-30yers. I have selected random sample technique and gathered 52 responses. The targeted population for the survey is the people who are riding the bicycles.

### Division of Responses

After gathering the responses, it is found that 80.8% of respondents are between the age group of 21-30 years and also identified that nearly 80.8% of respondents are from the people who are single and also identified that 11.5% of respondents are between the age group of 41-50 years. And rest of the respondents is given by the age group between 16-20 and 31-40years and from Married people.

### Hypothesis Formulation

**Dependent variable:** Health

**Independent variables:** Environment, Exploration, Attitudinal, Social Influence

#### Hypothesis 1:

**H0:** Attitudinal does not have positive impact on bicycle tourism on health conscious travellers

**H1:** Attitudinal have positive impact on bicycle tourism on health conscious travellers.

#### Hypothesis 2:

**H0:** Environment does not have significant impact on Bicycle Tourism on health conscious travellers

**H1:** Environment has a significant impact on Bicycle Tourism on Health Conscious Travellers

#### Hypothesis 3:

**H0:** Exploration does not depend on Bicycle Tourism on Health Conscious Travellers.

**H1:** Exploration depends on Bicycle Tourism on Health Conscious Travellers.

#### Hypothesis 4:

**H0:** Social Influence does not have impact on Bicycle tourism on Health Conscious Travellers

**H1:** Social Influence has impact on Bicycle Tourism on Health Conscious Travellers

## RESULTS AND DISCUSSIONS

- The research is focused on To study the impact of bicycle tourism on health conscious travellers. I have utilized SPSS software for the research and gathered 52 responses and based on these respondents, different tests have been conducted like Factor Analysis, Reliability test and Discriminant Analysis. ual The
- conceptual model has been developed by using smart PLS. in the beginning for the test, we will conduct different tests to identify the identified variables are suitable for the test and questionnaires frames are best suits and can useful for developing the model.

### Reliability Test

Reliability testing is one of the tests that determine the reliability of your data. Mathematically, stability is essential to calculate response volatility of various participants for further analysis of the survey. The calculation of Cronbach's Alpha is based on the number of items and the ratio of covariance between average items to the average item variance. The value of Cronbach's Alpha is reported in the reliability statistics. C. R. Kothari (2004). It is difficult or impossible to rather the complete standard data from human responses in survey, because of various factors the product quality, consumer behaviour, emotional values, ethical values etc., only we can hope to get the data which is to be reasonably consistent to our analysis These are the conditions for the reliability test to know the data is reliable for further Analysis.

**Table2:** Case processing summary

Case Processing Summary			
		N	%
Cases	Valid	52	100
	Excluded <sup>a</sup>	0	0
	Total	52	100

a. Listwise deletion based on all variables in the procedure.

**Table3:** Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
0.93	24

The above table Cronbach's Alpha value of 0.930 is reported from the reliability test which is run on the SPSS 26.0 software, so the respondent's responses are consistent and reliable for further analysis. Cronbach's alpha is used to determine the solidity of the survey data; so that Alpha value of above 0.8 in standardized and also for all the items is fulfilling the minimal acceptance level of 0.7, therefore, the data is reliable for the further analysis.

### Validity Test (KMO & Bartlett's sphericity test)

KMO & Bartlett's test is to determine the sufficiency of the proposed sample in order to confirm the case at variable rate in the study being performed. Tests from KMO & Bartlett play an important role in data acceptance. The KMO value range is a value between 0 and 1 Values greater than 0.6 are universally allowed, and data is sufficient and valid for research, The Bartlett sphericity test relates to the value of the study and shows the validity and accuracy of the data to solve the research problem through research, Bartlett's sphericity test is valid and should be less than 0.05 for future analysis.

**Table4:** Validity Test

Kaise-Meyer-Olkin Measure of Sampling Adequacy	.784
Bartlett's Test of Sphericity Approx. Chi-Square	806.329
Df	276
Sig	.000

From the above table KMO value 0.784 which indicates that the sample is sufficient and p-value(Sig.) is .000 (less than 0.05) as a result of the test we can conclude that the sampling id adequate and valid for the analysis.

### Demographic profile

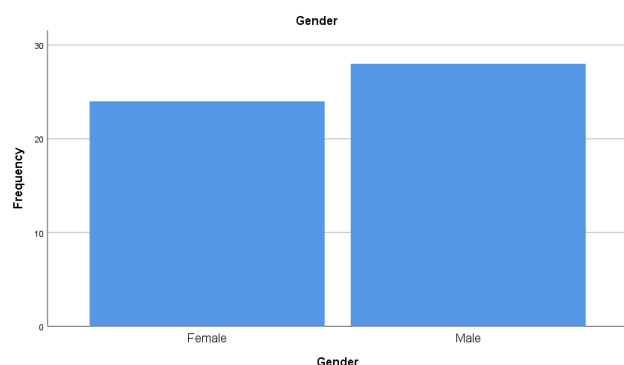
Demographic factors use personal traits to collect and assess data on people in a particular population, including age, gender, marital status, race, education, income, and occupation. The socio-economic characteristics of the statistically expressed population, such as education level, income level, marital status, occupation etc.

#### Gender

**Table5:** Qualification of Respondents

Level	Frequency	Percentage
Female	24	46.2
Male	28	53.8
Total	52	100.0

From the above table we can notice that out of 28 respondents, around 52 are male rest are (24) female.



**Figure1:** Gender distribution of respondents

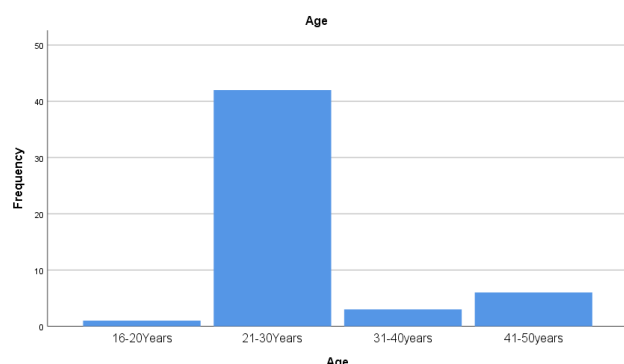
Among the total respondents 53.8% were Male and 46.2% Female. There is no much gap in the number of Male and Female.

### Age

**Table6:** Age group and Respondents

Age	Frequency	Percentage
16-20Years	1	1.9
21-30Years	42	80.8
31-40Years	3	5.8
41-50Years	6	11.5
Total	52	100.0

The above table states that age group obtained from survey among 52 questionnaires 1.9% of people answered from 16-20 years, 80.8% of people answered from 21-30 years, 5.8% of people answered from 31-40years, 11.5% of people answered from 41-50 years age groups.



**Figure2:** Age group of Respondents

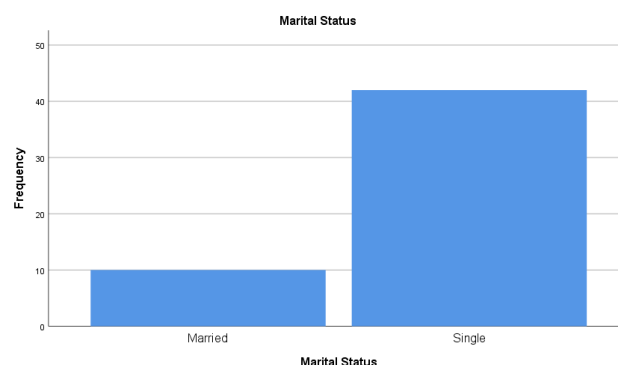
More respondents were among the age group of 21-30years i.e. 42 respondents (80.8%). The rest of the age groups 16-20 years, 31-40 years and 41-50 years were minimum in the study like 1 respondents

### Marital Status

**Table7:** Marital Status Respondents

Marital Status	Frequency	Percent
Married	10	19.2
Single	42	80.8
Total	52	100.

The above table states the Marital Status obtained from survey among 52 questionnaires 19.2% of people who are replied are Married and 80.8%of people who are replied are single.



**Figure3:** Marital status Respondents

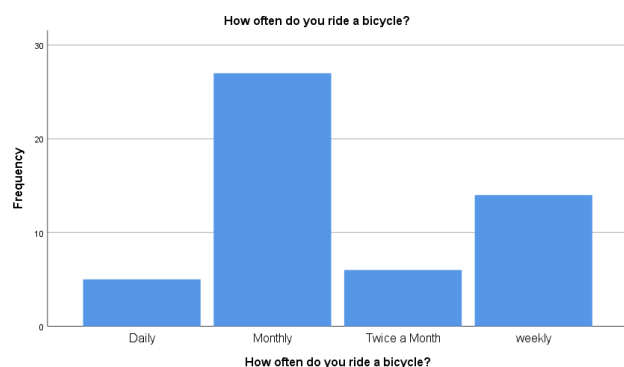
More respondents were given the people who are single i.e. 42 (80.8%) and rest of the respondents were given by the people who are married i.e. 10 (19.2%).

### How often do you ride a Bicycle?

**Table8:** How often do you a ride a bicycle? Respondents

	Frequency	Percent
Daily	5	9.6
Monthly	27	51.9
Twice a Month	6	11.5
Weekly	14	26.9
Total	52	100.0

The above table states that how for often people are going to ride a bicycle like Daily, Monthly, Twice a Month, Weekly obtained from the survey among 52 questionnaires 9.6% of people are going to ride daily, 51.9% of people going to ride Monthly, 11.5% of people are going to ride Twice a Month, and 26.9% of people are going to ride Weekly.



**Figure4:** How often do you ride a bicycle? Respondents

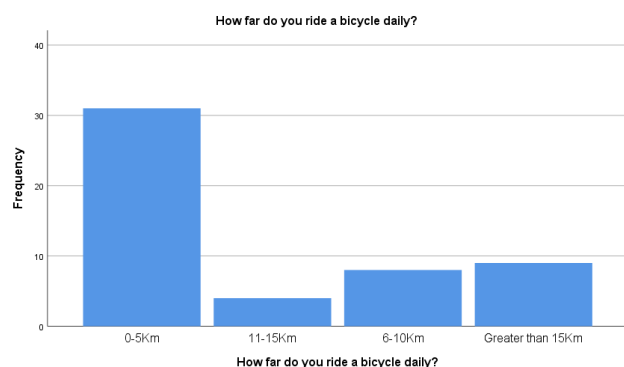
The above graph shows that more number of people are going to ride a bicycle Monthly and Weekly i.e. 27 respondents are monthly (51.9%), 14 respondents are Weekly (26.9%) and The rest of Daily and Twice a Month riders minimum i.e. 5 respondents are daily (9.6%), 6 respondents are Twice a Month (11.5%).

How far do you ride bicycle daily?

**Table9:** How far do you ride a Bicycle Daily? Respondents

	Frequency	Percent
0-5Km	31	59.6
6-10Km	8	15.4
11-15Km	4	7.7
Greater than 15Km	9	17.3
Total	52	100.0

The above table states that How often people are going to ride a bicycle daily? Obtained by the survey among 52 questionnaires 59.6% of people are going to ride 0-5Km daily, 15.4% of people are going to ride 6-10Km daily, 7.7% of people are going to ride 11-15Km daily, and 17.3% of people are going to ride greater than 15Km daily.



**Figure5:** How far do you ride a Bicycle Daily? Respondents

The above graph shows that more people are riding a bicycle from 0-5Km i.e. 31 respondents (59.6%), and people who are riding bicycle 6-10Km and more than 15Km are average i.e. 8

respondents (15.4%) and 9 respondents (17.3%). And the people who are riding bicycle 11-15Km daily are very low i.e. 4 respondents (7.7%).

#### 5.4 Total Variance Explained

**Table10:** total variance explained

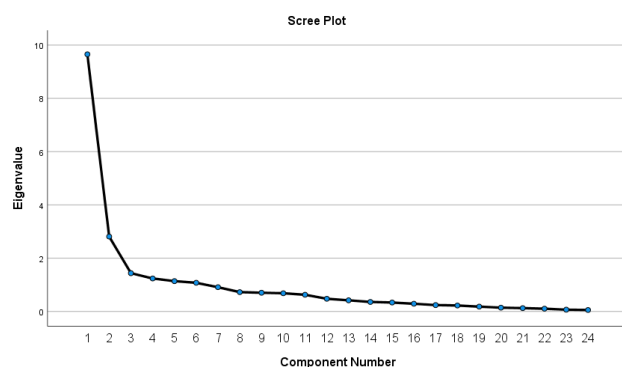
	Initial Eigenvalues			Extr	Rota				
	Total	% of	Cum	action	tion				
		Varia	ulati	n	Sum	s of			
		nce	ve %	Sum	s of	Squa			
				red	red	red			
				Load	Load	Load			
				ings	ings	ings			
1	9.653	40.223	40.223	9.653	40.223	40.223	3.787	15.778	15.778
2	2.811	11.711	51.934	2.811	11.711	51.934	3.290	13.710	29.487
3	1.436	5.985	57.919	1.436	5.985	57.919	3.126	13.026	42.513
4	1.237	5.154	63.072	1.237	5.154	63.072	2.985	12.438	54.951
5	1.138	4.742	67.815	1.138	4.742	67.815	2.213	9.219	64.170
6	1.075	4.480	72.295	1.075	4.480	72.295	1.950	8.125	72.295
7	.910	3.792	76.087						
8	.725	3.022	79.109						
9	.702	2.924	82.033						
10	.682	2.843	84.876						
11	.625	2.606	87.482						
12	.476	1.982	89.464						
13	.418	1.742	91.206						
14	.357	1.486	92.691						
15	.334	1.393	94.085						
16	.289	1.204	95.288						
17	.239	.995	96.284						
18	.223	.927	97.211						



19	.181	.753	97.964
20	.141	.589	98.554
21	.124	.515	99.069
22	.103	.431	99.499
23	.066	.275	99.775
24	.054	.225	100.000

The above table shows the variance component values for the questions based on the variables. This test shows the extracted components and based on the extraction method. The overall percentage has been provided and it is revealed that 5 components has been extracted and the test provides 72.295% percentage till the 5 components.

### 5.5 Screen Plot



**Figure6:** Screen Plot

The above figure is the screen plot for the component number and the Eigen values. If we observe the graph, we can say that in the x-axis component numbers are considered and in the y-axis Eigen values are considered for the research. In the above figure, we can observe that from the component 5, the Eigen value has been decreased and below 1 and it went down from the component 6. This is all observed based on the Eigen value.

### 5.6 Rotated Component Matrix

**Table11:** Rotated Component Matrix

Rotated Component Matrixa						
	Component					
	1	2	3	4	5	6
In future I have plans to socially involve in	.727		.478			

bicycle tourism		
I personally get influenced by social media post to start cycling	.723	
I support people who use bicycle to commute everyday	.719	
The scenery is beautiful when, I am travelling on bicycle	.670	
Riding bicycle adds value to my life	.601	
Riding bicycle is exciting and challenging	.432	
I think bicycle sharing reduces environmental pollution	.791	
I am concerned about the environment	.750	

I prefer to bicycling to boost my mental health	.579	.407	.448
I always try to motivate people to use bicycle for short distance travelling	.520	.422	
I intend to use bicycle for tourism very frequently		.680	.471
Bicycling is a method of transport, I would recommend everybody to use everyday	.520	.672	
I like to explore various places by bicycle	.612	.624	
I prefer encounter the cultural and historical sites during bicycle travelling		.605	.503

I prefer Bicycle regularly to avoid my future health concerns	.584	.433	
I think using bicycle is easy for me		.796	
Bicycling helps to improve my posture and reflexes		.736	
I will bicycle because bicycling keeps a person physically fit	.549	.599	
Riding bicycle is pleasurable to me		.576	.457
I feel cycling is fashion element		.792	
Bicycling helps to increase my ability to sleep		.414	.596
I want to use bicycle in my next vacation	.493	.536	
It feels good to		.860	

act in an environmental responsible manner	
I think cycling would improve awareness of environmental protection	.654

From the above rotated component matrix table 5.6, the cut off value taken is 0.4. If any of the variable does not have a cut-off value will keep excluding those variables and again run the factor analysis until all the variables are above the cut off value point to get appropriate the results. For every variable the rotated component matrix consists factor loading values. Hence, a variable which is appearing in one factor does not appear in the other factor. From the above rotated component matrix table, the highest value is considered from the corresponding variables and group factor. Once the variables are grouped using the cut-off point the factors are labelled on the basis of the variables having value more than the cut-off point for the corresponding factor.

## Correlations

### Hypothesis 1

**Ha0:** Environment does not have significant impact on Bicycle Tourism on health conscious travellers

**Ha1:** Environment has a significant impact on Bicycle Tourism on Health Conscious Travellers

**Table12:** Hypothesis correlation 1

Correlations			
		HEALTH	ENVIRONME NT
HEALTH	Pearson Correlation	1	.708**
	Sig. (2-tailed)		.000
	N	52	52
ENVIRONME NT	Pearson Correlation	.708**	1
	Sig. (2-tailed)	.000	
	N	52	52

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The above table 5.7 Correlations 1 indicates that variable 1 Environment is independent variable and variable 2 Health is dependent variable. The two variables are correlating to each other and showing a positive effect. From the analysis it concludes that Environment should be considered as one of the important variable for Health Conscious Bicycle Riders.

Hence Ha1 hypothesis is accepted, as the statistical data is showing a positive correlation between the variables with a correlation of 0.708\*\*, effect of environment on To Study the impact on bicycle tourism on health conscious travellers is highly significant at 0.01 level. Therefore, Environment is positively affecting on Health Conscious Bicycle Riders.

### Hypothesis 2

**Ha0:** Attitudinal does not have positive impact on bicycle tourism on health conscious travellers

**Ha1:** Attitudinal have positive impact on bicycle tourism on health conscious travellers

**Table13:** Hypothesis correlation 2

Correlations			
		HEALTH	ATTITUDINA L
HEALTH	Pearson Correlation	1	.652**
	Sig. (2-tailed)		.000
	N	52	52
ATTITUDINA L	Pearson Correlation	.652**	1
	Sig. (2-tailed)	.000	
	N	52	52

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The above table Correlations 1 indicates that variable 1 Attitudinal is independent variable and variable 2 Health is dependent variable. The two variables are correlating to each other and showing a positive effect. From the analysis it concludes that Attitudinal should be considered as one of the important variable for Bicycle Riders.

Hence Ha1 hypothesis is accepted, as the statistical data is showing a positive correlation between the variables with a correlation of 0.652\*\*, effect of Attitudinal on To Study the impact on bicycle tourism on health conscious travellers is highly significant at 0.01 level. Therefore, Attitudinal is positively affecting on Health Conscious Bicycle Riders.

### Hypothesis 3

**Ha0:** Exploration does not depend on Bicycle Tourism on Health Conscious Travellers.

**Ha1:** Exploration depends on Bicycle Tourism on Health Conscious Travellers.

**Table14:** Hypothesis correlation 3

Correlations			
		HEALTH	EXPLORATIO N
HEALTH	Pearson Correlation	1	.432**
	Sig. (2-tailed)		.001
	N	52	52
EXPLORATIO N	Pearson Correlation	.432**	1
	Sig. (2-tailed)	.001	
	N	52	52

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The above table Correlations 1 indicates that variable 1 Exploration is independent variable and variable 2 Health is dependent variable. The two variables are correlating to each other and showing a positive effect. From the analysis it concludes that Exploration should be considered as one of the important variable for Bicycle Riders.

Hence Ha1 hypothesis is accepted, as the statistical data is showing a positive correlation between the variables with a correlation of 0. .432\*\*, effect of Exploration on To Study the impact on bicycle tourism on health conscious travellers is highly significant at 0.01 level. Therefore, Exploration is positively affecting on Health Conscious Bicycle Riders.

#### Hypothesis 4

**Ha0:** Social Influence does not have impact on Bicycle tourism on Health Conscious Travellers

**Ha1:** Social Influence has impact on Bicycle Tourism on Health Conscious Travellers

**Table15:** Hypothesis correlation 4

Correlations			
		HEALTH	SOCIALINFL UENCE
HEALTH	Pearson Correlation	1	.566**
	Sig. (2-tailed)		.000
	N	52	52

SOCIALINFL UENCE	Pearson Correlation	.566**	1
	Sig. (2-tailed)	.000	
	N	52	52

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The above table Correlations 1 indicates that variable 1 Social Influence is independent variable and variable 2 Health is dependent variable. The two variables are correlating to each other and showing a positive effect. From the analysis it concludes that Social Influence should be considered as one of the important variable for Bicycle Riders.

Hence Ha1 hypothesis is accepted, as the statistical data is showing a positive correlation between the variables with a correlation of 0.566\*\*, effect of Social Influence on To Study the impact on bicycle tourism on health conscious travellers is highly significant at 0.01 level. Therefore, Social Influence is positively affecting on Health Conscious Bicycle Riders.

## CONCLUSIONS AND FUTURE DIRECTIONS

- The research is focused on the impact of bicycle tourism on health conscious travellers. Based on the literature review, I have identified different variables like dependent and independent variables.
- The Dependent variables is considered as Health and the independent variables are Environment, Attitudinal, Exploration and Social Influence.
- From the survey conducted I observed that 52 respondents have participated in this survey and among them 51.9% of people ride Bicycle Monthly and only 5% of the people ride Bicycle daily.
- Similarly 59.6% ride Bicycle 0-5Km daily and 17.3% Ride a bicycle more than 15Km daily.
- I have conducted different analysis and tests like Reliability, Factor Analysis and Conducted Hypothesis tests from the both dependent and independent variables. All the tests were analysed using IBM-SPSS.
- From the factor analysis it is identified that only 5 components are required for further analysis. Later from total variance explained it is observed that rotation sum of squared loading at component 6 is to be 72.29% and has ended the Iterations.
- From the tests it is observed and concluded that Environment and Attitudinal had more significant positive impact on Health Conscious Bicycle travellers.
- The Cronbach's Alpha is exposed from the test and it shows that the questionnaires framed based on the variables are strongly suited for the research. It shows the internal consistency for the variables.
- From the test I have identified the Co-relation among the variables and it is observed that the variables Environment and Attitudinal showed more significant Co-relation among

the variables. The tests have displayed the relation for each dependent and independent variables separately.

- It is identified that the respondents have felt that Environment and Attitudinal is the major factor impacting on the health conscious Bicycle tour travellers and next to that social influence exploration also placed an important significant impact on Bicycle Travellers.

#### Suggestions for future directions:

The present research has concentrated on the Health Conscious Bicycle travellers. The research was constrained to the North Bengaluru and only 52 responses were gathered, so future research should be possible on different factors and can focus on various pieces of the nation.

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