

**PUTTING VALUE ON PUBLIC CHOICES FOR
TOURISM: AN INVESTIGATION INTO
PUBLIC PREFERENCES FOR BETTER
TOURISM POLICY**



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CERTIFICATE

This is to certify that this thesis entitled: **“Putting Value on Public Choices for Tourism: An Investigation into Public Preferences for Better Tourism Policy”** submitted by **Mr. Umar Daraz Khan** is accepted in its present form by the School of Economics, Pakistan Institute of Development Economics (PIDE), Islamabad as satisfying the requirements for partial fulfillment of the degree in Master of Philosophy in Environmental Economics.

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Dedication

I would like to dedicate my dissertation to my beloved Parents, Brother, sisters and whole family members, whose never ending prayers, encouragement and support helped me to accomplish my goals.

DECLARATION

I, **Umar Daraz Khan**, Roll No. **PIDE2019FMPHILENV05** student of **Master of Philosophy (M. Phil.)** in the subject of **Environmental Economics**, Session **2019-2021**, hereby declare that the matter printed in the thesis titled **“PUTTING VALUE ON PUBLIC CHOICES FOR TOURISM: AN INVESTIGATION INTO PUBLIC PREFERENCES FOR BETTER TOURISM POLICY”** is my own work and has not been printed, published and submitted as research work, thesis or publication in any form in any University, Research Institution etc. in Pakistan or abroad.



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ABSTRACT

Tourism is globally a growing industry and has a great significance in the countries' GDP. Tourism and recreation is identified as the dominant potential for this region as well. This research aims to put light on the preferences of tourists concerning the environmental amenities. The study area is Islamabad's Daman-e-Koh view point and Lakeview Park. The objective of the study is to examine the public choices of environmental amenities available at both sites and to highlight the dominant functions of recreational spots from user's point of view. A sample of 300 questionnaires was collected from both the sites i.e. 150 from Daman-e-Koh and 150 from Lakeview Park. Simple random sampling technique was used to collect the data. Linear regression model was used for the study. Results revealed that hilly view, trekking, and 'peacefulness and calmness' were significantly dominant functions of recreational spots as per user's preference. Based on the findings of the study, government and policy makers need to focus on developing tourist spot with a hilly view and trekking facilities. Moreover the study found that 'peacefulness and calmness' is what tourists value the most for both the places.

Key Words: Tourist's preferences, travel cost method, tourism, primary data

TABLE OF CONTENTS

ABSTRACT.....	2
LIST OF TABLES.....	5
CHAPTER 1.....	7
INTRODUCTION	7
TOURISM ECONOMY:	9
RESEARCH OBJECTIVES:	10
RESEARCH QUESTIONS:	10
ABOUT THE STUDY AREA:	10
SIGNIFICANCE OF THE STUDY:	11
ORGANIZATION OF STUDY:	12
STUDY GOALS:.....	12
CHAPTER 2.....	13
LITERATURE REVIEW	13
CHAPTER 3.....	30
RESEARCH METHODOLOGY	30
3.1 TRAVEL COST METHOD	30
3.2 INDIVIDUAL TRAVEL COST METHOD	30
3.3 ZONAL TRAVEL COST METHOD.....	31
3.4 THEORETICAL FRAMEWORK AND ESTIMATION EQUATION.....	31
3.5 DATA ANALYSIS TECHNIQUES AND TOOLS	32
3.6 RESEARCH STRATEGY.....	36
3.7 RESEARCH DESIGN.....	36
3.8 QUESTIONNAIRE METHOD	37
3.9 POPULATION FRAME.....	37
3.10 SAMPLING TECHNIQUE.....	37
CHAPTER 4.....	38
RESULTS AND DISCUSSIONS	38
4.1 DEMOGRAPHIC ANALYSIS:	38
4.2 EMPIRICAL RESULTS	58
4.3 EMPIRICAL RESULTS	61
4.4 OVERALL REGRESSION (COMBINED DATASET).....	61
4.5 REGRESSION RESULTS OF DAMAN-E-KOH:	65
4.6 REGRESSION RESULTS OF LAKEVIEW PARK:	68
CHAPTER 5.....	71

CONCLUSION AND RECOMMENDATIONS	71
5.1 CONCLUSION	71
5.2 RECOMMENDATIONS:	73
5.3 FUTURE RESEARCH:	73
REFERENCES:	74
APPENDIX I.....	78
APPENDIX II.....	84
APPENDIX III	85
APPENDIX IV	86

LIST OF TABLES

TABLE 4-1: GENDER	38
TABLE 4-2: AGE OF THE PARTICIPANTS	39
TABLE 4-3: EDUCATION.....	40
TABLE 4-4: JOB STATUS	41
TABLE 4-5: INCOME OF INDIVIDUAL	42
TABLE 4-6: FAMILY INCOME OF INDIVIDUAL.....	43
TABLE 4-7: FIRST VISIT.....	43
TABLE 4-8: PAST VISITS	44
TABLE 4-9: FACTORS OF THE RECREATIONAL SITES.....	45
TABLE 4-10: MODE OF TRAVEL	46
TABLE 4-11: TOTAL TRAVEL COST	47
TABLE 4-12: TRAVEL TIME	48
TABLE 4-13: TRAVEL DISTANCE	49
TABLE 4-14: MONEY SPENT ON WAY	50
TABLE 4-15: TRAVEL COST PER CAPITA	51
TABLE 4-16: FOOD COST IN THE PARK	52
TABLE 4-17: ENTRANCE FEE PAID	53
TABLE 4-18: SPENDING ON ACTIVITIES (GAMES, KIDS PLAYING AREA).....	54
TABLE 4-19: PARKING FEE PAID	55
TABLE 4-20: INTENSITY OF ENTRANCE FEE.....	56
TABLE 4-21: APPROPRIATE ENTRANCE FEE	57
TABLE 4-22 SUMMARY STATISTICS	60
TABLE 4-23: COMBINED REGRESSION OF DAMAN-E-KOH AND LAKEVIEW PARK	64
TABLE 4-24: REGRESSION RESULTS OF DAMAN-E-KOH.....	67
TABLE 4-25: REGRESSION RESULTS OF LAKEVIEW	70

List of Abbreviations:

TCM: Travel cost method.

ITCM: Individual travel cost method

ZTCM: Zonal travel cost method

GDP: Gross Domestic Product.

WTTC: World Travel and Tourism Council

ANP: Ayubia National Park

MHN: Margalla Hills National Park

CHAPTER 1

INTRODUCTION

Tourism is globally a growing industry and has a great significance in the countries' GDP. Moreover, the tourism is socially and economically a phenomenon in which people move to other places or other countries with an aim of business, pleasure and vice versa. Moreover, tourist can be defined as a person who travels from one place to another and stays outside his every days routine at least for once in a year with an aim of business, pleasure and vice versa. Generally, a person travels from one place to another to visit different sites, for viewing different festivals to make himself feel relaxed. Moreover he observes natural areas and scenic views, historical buildings and monuments, and observes different festivals and cultures.

Tourism and recreation is identified as the dominant potential for this region as well. Pakistan, as a country is recognized by its natural beauty and adventures, its attractive landscapes and its green valleys, blue seas, and deserts and its mountains. Moreover, Pakistan offers its visitors all types of the attractions with impressive destinations to facilitate people/tourists. These include hiking, mountain biking, jeep rally in deserts, fishing and camel, bird and dolphin watching (Arshad et al., 2018). Tourists coming from different areas has different aims regarding tourism. Some prefer to go to a picnic place in front of lake, some prefer to hike, to view the mountains and vice versa.

Non-market goods are those which are not priced in the market like other market goods. Generally, public goods are non-market goods. These include parks, hill stations, rivers, lakes, mountains and vice versa. Non-market goods are simply those on which we cannot

set a price. Valuation of non-market goods refers to put a use value on the non-marketed goods. Knowing the preferences and demand of visitors towards a recreational site and to estimate it and value it accordingly is non-market valuation.

Nowadays, people give importance to the leisure due to better communication facilities and affordability and visits the recreational sites which increases the demand of the recreational sites. As outdoor recreation is an action which increases the visitor's relaxation and the demand for the outdoor recreation is on a rise as the population is rising. People visits the recreational sites with different aims i.e. trekking, scenic viewing, mountain climbing, picnic spotting, hiking, fishing, bird watching, enjoying nature and vice versa. Although we cannot evaluate the non-market goods as we evaluate the market goods. Hence, the preferences and demand of visitors towards a recreational site helps in estimating the non-market valuation.

Pakistan has great potential in its tourism sector, cultures, heritages and mountains. Moreover gorgeous and beautiful lakes, soothing rivers, great deserts and hospitality of people. Generally Pakistan has very good possibility for tourism and having a variation of cultures, fascinating landscapes, beautiful beaches, and great attractions and sites which satisfy the needs of the local tourists as well as international tourists. For example, Punjab is known for its religious diversity and cultural heritage which fascinates the tourists. Lahore is the provincial capital of Pakistan and is the second largest city of Pakistan which is famously known for its sites like Lahore fort, Minar-e-Pakistan and vice versa. Moreover, other tourism sites in Punjab like Soon Sakesar hilly station, Katha Mountain in Khushab and alike are sites which attract the tourists with every year.

Islamabad, the capital city of Pakistan is always been a hub for the tourists because of its scenic views, lakes and hilly spots. Tourists come here every year with different aims of tourism. Some have an aim of visiting the parks and enjoy the picnic spots. Some want to enjoy trekking and natural beauty of the city by choosing the hilly spots. This research will be based on the recreational sites of Islamabad.

Tourism economy:

The tourism industry of any nation is the backbone of economy of that nation. This is turning into an industry which is generating a great revenue at global level (Arshad et al., 2018). Tourism, becoming a growing industry internationally has become a leading economic sector because this tourism industry conveyed \$7.6 trillion to the world economy which is 10.2 percent of the world's GDP. This is because of the travelling of 1.2 billion visitors to worldwide destinations and they also generated 292 million jobs in 2016. Moreover, the direct contribution of tourism in 2016 was US\$ 7.6 billion which is 2.7 percent of GDP and it is expected to grow further by 2027 (WTTC, 2017).

Furthermore, the government predicts that by 2025, tourism will contribute US\$6.2 billion (Rs 1 trillion) to the Pakistani economy. According to an estimate, tourism in Punjab has the potential to generate almost USD \$ 1.9 billion worth of income annually. Moreover, Khyber Pakhtunkhwa's tourist expenditure increased from Rs. 86.23 million in the financial year 2012-13 to Rs. 791 million in the financial year 2018-19, reflecting the province's growing importance in the sector (KITE, 2015). Increased tourism promotion has resulted in a huge increase in visitor traffic in the province, resulting in increased economic activity and the creation of new job opportunities for the local population.

Therefore, it is always important to investigate public preferences concerning tourism and strive for informed policy making.

Research objectives:

- The aim of this research is to examine and estimate the public choices of environmental amenities available at Daman-e-Koh and Lake View Park by using Revealed Preference Method.
- This study will highlight the dominant functions of recreational spots from user's point of view.
- To support prudent policy making by unveiling public preferences and making the policy reflective of public preferences to enhance efficiency.

Research questions:

- What are the public choices regarding tourism of Daman-e-Koh and Lake View Park of Islamabad?
- What are the dominant functions of recreational spots from users' point of view?

About the study area:

Islamabad, the capital city of Pakistan has always been a tourism destination because of its natural beauty, beautiful mountains and lakes, amusement parks and trekking. Moreover it is a favorite destination for tourists because of its scenic views. Some tourists want to enjoy trekking, sightseeing and natural beauty and some want to enjoy the view of lakes, boating, fishing and games. The reason to select this area is to identify the preferences of tourists towards the tourist sites so that the policy could be made from the revealed preferences of the tourists.

Two sites are considered for the valuation. First is the Daman-e-Koh site of Islamabad. Daman-e-Koh is a hilly station, a viewing point and hill top garden at north of Islamabad and it is located in the middle of the Margalla Hills in Islamabad. Daman-e-Koh is a site where tourists can enjoy trekking, natural beauty and sightseeing and have picnic with their families. Daman-e-Koh is a popular destination for the residents of Islamabad as well as the visitors visiting Islamabad. Moreover, it is a favorite hilly spot for most of the tourists from different places.

The second site Lake View Park is an adventure park, amusement park and also Wildlife Park and also having Pakistan's largest bird cage. Moreover Lake View Park, being a Dam View Park has boating, fishing and horse riding facility, picnic points for families and 5D motion ride. Lake View Park is located near Village Malpur Rawal Lake, on Murree Road Islamabad. This park is one of the favorite tourist destination for the visitors coming from other zones and also for the residents of Islamabad. Lake View Park, the second study site is approximately 13 km away from Daman-e-Koh, the first site.

Significance of the study:

National parks and tourism spots benefit society in many different ways like other environmental resources. This topic of valuing the public choices refers to the choices of public/visitors on visiting the specific place/area. Valuation of these areas is necessary to identify visitors benefit through travel cost method. Significance of this topic refers to the comparison of different environmental amenities in which it will highlight the preferences and purposes of people to visit the particular place and this study will be about putting a preference on environmental amenities through Travel Cost Method (TCM). Moreover, this will be based on the response of the visitors of that particular place.

The purpose of this research is that it will help the policy makers to know the public preferences and their financial value towards the particular place so that the policy makers can plan better accordingly. Moreover, the government can spend the public funds onto those tourism sites which has a demand according to the tourists.

Organization of study:

We discussed a brief overview of the whole thesis in the organization of the study. This research is organized as follows: the first chapter of research includes the introduction, tourism economy, the objective of the study, research questions, description of the study area and significance of study. The second chapter covers the literature review. The different travel cost methods, methodology and theoretical framework are then discussed in the third chapter. The fourth chapter comprehends the findings of the study. In chapter fifth we discussed the conclusion and recommendations of the study.

Study goals:

Tourism of a country has a great importance and it is the backbone of a country. Moreover, tourism industry also plays a significant role in the socio economic development and add to the growth potential of the country. Tourism as an industry impacts the economy directly. Hence to recover from the economic shock of pandemic, tourism is an industry which holds a great potential after the pandemic and it will also generate revenue for the country. Therefore, this study has explored public choice concerning tourism and thus expects to contribute to the existing literature.

CHAPTER 2

LITERATURE REVIEW

As tourism has always been an important source of income as well as employment. Tourism and the recreation is identified as the supreme/dominant functions of the region. Although there has been a tendency for business and for policymakers to place more weight on benefits economically of development in tourism manner. Economic value is measured on the demand and preferences of people. People reveal their demand and preferences through the decisions they make and choices they made including the tradeoffs. Thus these go with the constraints of people i.e. their income, their time, their budget and vice versa (King, 2000). Moreover, valuation of non-market goods are mandatory and are different from the rest of the prices of the market goods. Examples of non-market goods include the parks, streams, lakes and public lands. Moreover people's travelling and willingness to enjoy the non-market goods i.e. rivers, lakes, parks are revealed by travel cost method and then their preferences are measured accordingly. As the tourism areas such as hilly spots, deserts, nature and wetlands attract the visitors, these tourism activities are the origin of the economic bump for the maintenance of the natural areas (Brandl et al., 2011).

The concept of tourism has been analyzed in different dimensions in developed and developing countries. According to World Tourism Organization, tourism is a phenomenon, which involves the traveling and moment of people from one place to another or one country to another country, outside of their usual environment for many purposes, including the business, special and personal determinations. It also involves staying at the site or round trips of targeted or non-targeted places. "The term tourist comes from the

word tour, which refers to a round trip, usually for education, business or pleasure during which several locations are visited and a plan is usually prepared."

Public parks has however played a significant role in opposition to the degradation of the environment of urban community and city government, however, have faced difficulties in the maintenance of these public parks and in the preservation of them. Hence, there is a need to identify an approach to value the recreational sites i.e. public parks to elicit the visitors benefit. Hence it was important to introduce a new concept to value the recreational sites using a technique called the travel cost method to highlight the supreme factors according to the visitors involving the expense of the visitors. Author argues that this technique will feature the preferred characteristics of the recreational sites from the viewpoint of the visitors (Iamtrakul et al., 2005).

For evaluating the non-market goods, Travel cost method is known as the most effective method for evaluating the consumer surplus linked up with travelling to the amusement sites like parks, heritage sites and beaches (Hailu et al., 2005).

Farrow stated that the travel cost model was initiated by Harold Hotelling in a letter to the US Forest service in 1940 which makes an estimate of the willingness of the visitors that how much they are willing to travel and their willingness to enjoy the environmental amenities (Farrow et al., 2000). Moreover, he suggested in the letter that the costs of the trips that visitors bear should be included into the recreational value of that specific tourism site. Pearse stated that literature also throws light on the valuation of the ecotourism. Tourism valuation approaches/methods used in most of the studies are Travel cost method (TCM) and Contingent Valuation Method (CVM). Travel cost method focuses on the

factors that influence people's willingness to travel to a tourist site. These include the visitor's time, income, budget, number of visits per year and vice versa (Pearse, 1968).

Contingent valuation, as many studies have showed that, used to put a value on the goods that are not sold in the market or priced in the market. Such goods are non-market goods and it depends on the surveys to generate the value of those non-market goods (Cummings et al., 1986). Several studies showed that travel cost method is used more than the contingent valuation method. Although it can elicit many types of information despite only the use values of some specific area such as hill station, park and vice versa (Lindberg & Johnson, 1994). Travel cost method is dominant over the contingent valuation method (Freeman, 1993; Kaosa-ard et al., 1995) and (Willis & Garrod, 1991) and (Ward & Beal, 2000). Moreover, Willingness to pay of use value of the visitors can be estimated by extracting the factors such as a rise in costs, entering charges and also any betterments of the specific area (Abala, 1987); (Shultz et al., 1998).

Travel cost method is used to estimate the use values of the recreational areas. This was initiated by Hotelling and further developed by Clawson to examine benefits of natural areas. Basically, when a visitor visits any recreational site, his willingness to pay (WTP) to access the site is calculated by their visits at changed travel costs. Furthermore, there are two main variants i.e. zonal travel cost method (ZTCM) and individual travel cost method (ITCM). ZTCM collects the information of different zones while ITCM, as dependent variable, focuses on the site visits by an individual (Twerefou & Ababio, 2012). Travel cost method is a valuation method which is used to estimate the use value of non-market goods i.e. recreational sites and vice versa (Fleming & Cook, 2008). For measuring the consumer surplus, travel cost method is widely used and in this method, value of the recreational sites

is directly linked up with the cost of the visitors they spend on visiting the site (Lansdell & Gangadharan, 2003).

Another study was done of Shahid Zare Sari Forest Park for estimating its recreational value using the individual travel cost method (ITCM). Travel cost method (TCM) is used to evaluate the costs and benefits of a recreational area/site using the actual behaviour called revealed preference method. Moreover, TCM is a simple method use to evaluate the recreational value of a site and this method is not very expensive to apply. TCM can be used to evaluate the costs and benefits of a site like ejection of a recreational site, changes in environmental qualities of a site and addition of a recreational site. A sample of 302 individuals was selected in the study and data was obtained through questionnaires. Linear regression model was applied for results which revealed that consumer surplus per each visit was 12.53 USD and recreational value of 72,500 visitors who visit annually was 52,558 USD ha forest parks have recreational value which will help the policymakers to plan better for the maintenance of the sites (Pirikiya et al., 2016).

Tang (2009) estimated the recreational value of Yuelu Mountain Park in china. He estimated the rising of entrance fee of the park and trips that will be lost next year. Results, using the travel cost demand function showed that average access value for local individuals was € 0.75 and € 64.52 for non-local residents and an entrance fee of € 5.43 will maximize the revenue collected from the visitors. Istangkura, (1998) has measured the recreational value of three areas of the northern Thailand. Results indicated that the method used in the research i.e. contingent ranking method is more facilitating for the visitors to express their preferences than the open-ended WTP structure. Another two studies, Harvard Institute for International development (HIID) and Thailand Development

Research Institute (TDRI) have estimated willingness to pay (WTP) using both the valuation methods i.e. Travel cost method (TCM) and Contingent valuation method (CVM) on Khao Yai National Park in China.

Some of the studies including (Kaosa-ard et al., 1995) have used travel cost method for valuing the tourism site and both the studies have used the model for single site valuation. Moreover many studies, parallel to this, have used the multi-park system for the valuation using the travel cost method (Isangkura, 1998). Limitations in the studies were wrong variables and estimations and not quotes the latest publish. Khan (2006) have done the valuation of the Margalla hills national park using the travel cost method (TCM) and contingent valuation method (CVM) and productivity changes method. His study was first of its kind in Pakistan and I has been used as pioneer work.

Travel cost method (TCM) depends on two ideas, the first one is that the price which the visitors bear to travel to a recreational site is considered to be same as the price of the market and the second one is that different costs of visiting a site that the tourists bear helps the researcher to estimate a demand curve because the way they respond to the price can be estimated from the consideration of the behaviour of those visitors who pay the price actually because of their travel cost (Voltaire et al., 2017). A study in Iran has used Travel Cost Method for evaluating the non-market goods and services and recreational sites (Sohrabi Saraj et al., 2009). Another study has used the Individual travel cost method (ITCM) to estimate the recreational value of the Gold Coast beaches. The results showed that \$19.47 per person is the value of a single beach visit (Zhang et al., 2015).

The zonal travel cost method (ZTCM) relies upon the macro data. ZTCM includes dividing of the data into the zones considering the homes of visitors into the zones at far in distance

and then estimating the travel cost of the visitors into the zones and from the recreational site of study. Moreover, aggregate demand is estimated by adding the number of visits of the visitors to the recreational site per zone of the region. Several studies have used the zonal travel cost method (ZTCM) with an aim of estimating the absence in the variation of the trip data (Willis et al., 2012). The zonal travel cost method (ZTCM) puts a value on the recreational benefits of a zone by multiplying the average cost of visit of that area by the total number of the visits (Anning, 2012).

Ghodaghodi lake complex, a site in western Nepal was investigated for resource conservation using the travel cost method (TCM) and contingent valuation method (CVM). TCM was used to put a value on the potential of recreational spot and CVM was used to check the willingness of the people/visitors to pay an entrance fee. Furthermore, the results showed that the travel cost per person was US \$7.71 and 540 in Nepal rupees while the WTP to pay the entry fee was US \$0.48 of a visitor per visit/entry (Lamsal et al., 2016). Zonal travel cost method (ZTCM) and individual travel cost method (ITCM) are two approaches that are used in the travel cost method and random sampling technique was used in the paper to select sample. Furthermore, for the individual travel cost method (ITCM), the dependent variable is the number of visits per year or per season made by an individual while the zonal travel cost method is the number of visits of a population from a specific zone (Lamsal et al., 2016).

Another study that was done on the Gir forest of Gujarat which is known as the famous tourist site worldwide because of the presence of the Asiatic lions. This study also used the travel cost method for the valuation of the recreational spot. Furthermore, travel cost method is used to put a value on the recreational spots such as parks, lakes, beaches and

vice versa. 89 questionnaires were distributed among the target population and CVM is used to check the willingness to pay of the visitors for the conservation of the environmental quality as if we increase the entrance fee, the willingness to pay will be decreased and vice versa. Results showed that there is a significant relation between the travel time and visitors to the site (Vaghadia & Sankul).

Masouleh forest park is another study that has evaluated the recreational value of park using the travel cost method (TCM) which is an economic valuation method used to put a value on the goods and services that cannot be priced in the market such as parks, lakes, forests and vice versa. Results showed that WTP on an average is 12,500 Iranian Rials and average round trip costs about 10,000 Iranian Rials. For this study, 96 questionnaires were distributed among the selected sample of the visitors to the park. Furthermore, the results showed that the important variables in visiting the park were the education, age, travel cost and travel time and also they showed that number of visitors decreased if the travel time is increased. Similarly, if the entrance fee to the park will increase, the number of visitors will be decreased. Furthermore, the paper elaborated that the value of a site is estimated from the scenario that how much people are willing to get there which is called as revealed preference method (Limaei et al., 2014).

Moreover. A case study was done in Japan's Saga city to take into account the recreational responses of the visitors of the specific site. Results revealed a prominent fact that has an important role in eliciting economic information for the policy makers to manage accordingly and to preserve the quality of public parks with the consent and preferences of the visitors (Iamtrakul et al., 2005). The Travel cost method emphasizes the most important functions of public parks from the perspective of users, making it a helpful technique for

valuing public park services. In order to estimate the current advantages of public parks, an investigation of park users' behaviour is utilized to infer economic value on travel expenses to consume public amenities. Then, based on the economic value of visiting a public park, the travel cost approach is utilized to evaluate the recreational advantage. In order to demonstrate the effectiveness of the suggested framework, a case study was done to analyze the recreation behaviour of park visitors in Saga, Japan. The travel cost method was also used to determine the recreation demand in parks in this study.

Mitra (2003) used the TCM to try to quantify the recreational value of a few Arunachal Pradesh tourism destinations. His estimate of Indian tourist consumer surplus per visit was Rs 995.51 and foreign tourist consumer surplus was Rs 1232.48. In 2004, authorities from Sikkim's State Council of Science and Technology employed the TCM in a project to estimate the sustainable development of eco-tourism in the state. Using contingent valuation techniques, (Hadker et al., 1997) attempted to evaluate Mumbai residents' willingness to pay for the care and preservation of the Borivli National Park (BNP). Chopra (1998) conducted a comprehensive research to assess Bharatpur National Park utilizing the trip cost method and a multi-criteria approach based on ecological economics. Both the CVM and TCM methods were utilized to determine the recreational value of Khangchendzonga National Park and the sacred Khecheopalri Lake, as well as the willingness to pay of locals, other domestic tourists, and foreign tourists.

CVM is typically used to assess the impact of changes in environmental quality, recreation, wetland, water and soil quality, and forest and wildlife protection on welfare. This model is mostly used to determine the residential market, whereas the travel cost model is used to determine the value of national parks, recreational fishing spots, beaches, and woods,

among other things. The Gir forest in Gujarat state is renowned as one of the most popular tourist destinations in the world due to the presence of Asiatic lions. The recreational value of the Gir forest is calculated using the travel cost approach.

Lambert (2003) argued that “nature has inherent value, that it is our long-term life support system, and that this is sufficient justification to maintain it.” While this is a valid argument, the reality that most natural resources face around the world, according to the author, is rather different. Economic value analysis are becoming more common in resource management choices. (Navrud & Pruckner, 1997) and (Leslie et al., 2004).

Travel cost method or TCM is an indirect method used for estimating user benefits from visits to recreational sites (such as beaches, parks and heritage site (Liston-Heyes & Heyes, 1999). The expenditures related to recreational travel would be classified as travel expenses as an accounting an aggregation of out of pocket charges associated with distance travelled and value of time spent travelling if the travel cost technique was used. (Englin & Shonkwiler, 1995).

Iamtrakul et al. (2005) has done a case study on the impact of variable accessibility and destination attractiveness on park users' travel behaviour. A field survey and personal interview survey were conducted on three park locations, Saga Castle Park, Shinrin Park, and Kono Park, as representatives of public parks in this city, to support the applicability of this study's approach. The survey used random sampling method and a sum of 289 questionnaires were performed for the analysis. Questions regarding the park visitors' socioeconomic, travel and activity characteristics were used to value parks benefits. Moreover, this study has used the travel cost method with the other expenses as well to assess the advantage a visitor gets on visit to the site. The important thing is that visitors

may select only one site for visit and not the multiple sites so that it would be easy to elicit the travel cost and the spending as participation cost actually, in the park. To evaluate the association between travel and activity to recreational sites, this study used an innovative way. An indirect value of calculation of park users' benefits has been done by an evaluation of recreation expenses on an individual and group preference approach, based on a combination of travel cost method and total activity spending. As a result, the recreation benefit can be elicited from the actual response of the visitors.

In contrary to the zonal method, the dependent variable in the individual travel cost technique is the number of trips made by visitors, whereas the visitors in the zonal model are from zones. As a result, when compared to the zonal travel cost model, the individual travel cost technique can collect more data and estimate the trip cost of actual consumer excess more accurately than the zonal model (Willis & Garrod, 1991). Individual travel cost method, on the other hand, is widely known as the most justified and widely used method, as evidenced by numerous studies (Parsons, 2003).

Tang (2009) stated that TCM is a demand-based model for recreational use of a location or locales. In this method, which tries to value non-market goods or services through people's travel consumption, the sum of the direct cost obtained from consuming the environment service and the consumer surplus is taken as the price of the non-market products. Tourists' willingness to pay for the recreational location is reflected in these figures. The consumer surplus is calculated assuming that all visitors receive the same advantages from the same public goods and services.

Lundberg (1972) wrote in his book that travel can give you a sense of strength and freedom that you don't get from your everyday life. Sitting in the driver's seat of a limousine while

it travels across a state provides a lot of visual stimuli. Traveling by water is both dangerous and thrilling, especially during a storm. Sunsets, mountains, a deep valley, and trees are all examples of natural beauty that are attractive to the sight. Nature's beauty inspires or impresses the majority of people; otherwise, how do we account for the 75 million annual visitors to our National Parks? The massive exodus from the city to the countryside on weekends is another illustration of man's yearning to be amid trees and grass, streams, and open sky.

The quality of water has a significant influence in determining the economic value of ecosystem goods or services associated to water. Because the scenic beauty or usage value of such amenities is not generally priced in markets, it is difficult to determine the value of lake water using traditional economic measurements. Because there are no markets for such services, accurate non-market pricing approaches must be introduced. The most extensively used approaches for determining the worth of non-market goods are the Contingent Valuation Method (CVM) and the Travel Cost Method (TCM). Pilikula Lake presently renamed Dr. Shivaram Karantha Pilikula Nisargadhama, is located in a rural location about 10 kilometers from Mangalore city, India. Using travel cost and contingent valuation methods, the study was conducted to determine the economic worth of water or the average Willingness to Pay (WTP) by tourists for the economic benefits offered by Pilikula lake water (Nandagiri, 2015).

Khan (2006) conducted a research to determine the value of Pakistan's Margalla Hills National Park (MHNP). In 2002-03, the information was gathered using an on-site sample survey. The data was collected from a sample of 1,000 visitors using a random sampling procedure. This evaluated an individual trip cost model for environmental resources in a

theoretical framework consistent with the fundamental principles of consumer behaviour. Using individual household data, this model was used to measure the willingness to pay (WTP) for park visits. Visitors' demand for park trips was also calculated using price and income elasticities. Individual travel expenses were discovered to be inversely associated to park visits. This means that the higher the cost of visiting MHN Park, the less tourists will come.

In addition to travel costs, household income had a positive impact on recreation demand. Tourists with a greater income were more likely to return to the park on a regular basis. This means that as tourist money rises, so will demand for recreational activities. Visitors' education had a positive sign, but their age had a negative sign, with negligible coefficients for both factors. According to the survey, the total consumer surplus was Rs. 23.2 million, while the total recreational value was Rs. 200.1 million. The paper compared current consumer surplus and cumulative recreational value to those predicted in a hypothetical scenario, concluding that improving the park's quality would result in annual consumer surplus and total recreational value of Rs.32.01 million and Rs.208.9 million, respectively, if the park's quality was improved (Khan, 2006).

Outdoor activity is a relaxing sport that attracts people. With the growing population, there has been an increase in the demand for outdoor recreation. Outdoor activity, has little natural and economic resources, on the other hand. As a result, estimating the economic advantage of recreational sites is required in order to deploy limited resources efficiently. Masouleh Forest Park, located in northern Iran, is one of the country's most popular tourist destinations. To determine its recreational value, the Travel Cost Approach (TCA) or Clawson technique is utilized. TCM is an economic valuation method for determining the

worth of non-marketable commodities and services, such as forest parks, ecosystems, and beaches. It assumes that the value of a website is determined by the amount of money people are prepared to pay to see it. It's dubbed a revealed preference technique since it uses actual behaviour and decisions to account for environmental values (Limaei et al., 2014).

Lakes, rivers, streams, woods, and parks are examples of environmental and natural resource systems that provide goods in terms of resources and services, as well as a source of amenity services, recreational use, and life-support functions. For a variety of reasons, understanding the value of these services is vital. Typically, such recreational resources are not distributed through markets. Rather, all visitors are usually allowed entry for free or for a little fee that has no relation to the cost of providing access. And these access fees vary little or not at all over time or across places, have providing data for econometric demand functioned calculation (Freeman, 1993).

Pakistan, like many other developing countries, is attempting to revitalize its natural-based tourism economy by establishing a growing network of national parks and reserves. In recent years, the Pakistani government has shown severe worry about deforestation and showed a keen interest in the development of a world-class national park system. In different sections of the country, Pakistan contains a variety of national parks, reserves, and wildlife refuges. Despite the fact that there are a restricted number of national parks and reserves, their management is unsatisfactory (Ullah, 2003). This could be related in part to a lack of government funding and visitors' free access to these sites. A thorough investigation into how these parks can be effectively managed and how these environmental resources can be valued is required. The purpose of this study was to gather

economic data on the benefits that result from recreational use of a national park, Ayubia National Park (ANP). The basic econometric model was used in the research. The study's two objectives were to determine the ANP's economic worth. The study's particular goals were to evaluate the ANP's consumer surplus and recreational value (benefits), as well as to see if improving the park's recreational benefits would lead to a larger demand for park visits. (Ullah, 2003).

Another study stated that tourists travel to various locations for a variety of reasons, including business, recreation, and adventure. Some tourists travel to locations with distinct cultures, norms, and traditions in order to see art, historical buildings, mountains, lakes, hear the language, and taste the local cuisine. Surprisingly, Pakistan is one of the few countries with all of the aforementioned characteristics, fascinating landscapes, and natural circumstances. Its long, rich ancient past, diverse culture, beaches, deserts, stunning landscape, glaciers, and mountain ranges provide a wealth of attractions for both international and local tourists. In the present study, the researcher selected two cities of Gilgit Baltistan, Hunza and Diamer district (Yaquub et al., 2019).

Tourism has grown in importance as a business sector and has a positive impact on any country's economic development. The term "tourism impact" has been used and explored in the literature on tourism. Researchers conducted field surveys and collected data from local inhabitants to analyze and appraise these outcomes. A vast number of studies have been undertaken in recent years to evaluate and examine local communities' perceptions of the impacts of tourism in their area (Yaquub et al., 2019)

The tourism sector has grown to be a significant economic activity all over the world. "Tourism is a social, cultural, and economic phenomenon that describes the actions of

people who travel to and remain in areas outside of their typical surroundings for no more than one year for leisure, business, or other reasons” (Mathieson & Wall, 1982).

Andreu et al. (2000) researched into the effects of tourism from three perspectives: economic, sociocultural, and environmental. Tourism is a type of economic activity that has both positive and bad consequences. For the locals, tourism is a key source of revenue. In the global globe, the tourism industry plays a significant role in the social and economic growth of countries. Every country is interested in developing tourism because of the numerous positive effects. Tourism has a variety of economic consequences that affect the country's entire economy.

Tourism is often seen as a source of foreign cash, new job possibilities, increased national income, and new economic sources, among other things. Tourism is important to a country's financial well-being. Tourist spending generates revenue for both the public and private sectors. As a result, tourism provides a source of money for a variety of countries, both developed and developing. Tourism has a significant economic impact on employment. In this light, tourism can be seen as a powerful industry that employs a huge number of people. It employs a large number of people and offers a wide range of jobs, ranging from the rudimentary to the highly specialized. As a result, the tourism sector involves all economic activities that are directly or indirectly involved in providing services to tourists (Andreu et al., 2000).

Zaei and Zaei (2013) argues that tourism not only contributes significantly to a country's economic, but it also has social and cultural benefits. Natural environments, parks, and picnic areas are preserved and well-managed in order to attract tourists. The environment is conserved in this way. The study's main focus is on the tourism sector and its

sociocultural, political, and economic effects on the host town. Tourism has the potential to play a significant part in the development of poor countries, but it will require a platform that maintains the social, environmental, and economic pillars of the planning process in mind.

Kruja et al. (2012) explored the relation between developing countries and tourism. Tourism may contribute significantly to the economies of underdeveloped nations. In third-world countries, job opportunities, income, improved infrastructure, and a higher quality of life can be attained, but at the expense of social and environmental degradation. The case study of Albania reveals that, while tourism is growing in some emerging nations with high GDP, poverty is increasing and the gap between the rich and the poor is widening. In order to prevent the effects and gain from tourism development, government intervention, planning policies, and good management are essential.

Khan et al. (2011), In Chitral, Khyber Pakhtunkhwa, a research-based study was undertaken. This is a perception-based study in which the social, economic, and environmental implications of tourism are examined in tourist destinations. This research relies on primary data. Questionnaires were conducted to evaluate the effects, and it was discovered that the economic impacts of tourism are more alluring because it is a source of revenue, employment, and economic growth in that particular location.

Sunlu (2003) argues that both natural and manufactured aspects of the environment play a significant influence in tourism. The relationship between tourism and the environment is crucial because many activities, such as the construction of roads, hotels, restaurants, resorts, and airports, have a negative impact on the environment, and these negative effects of construction lead to environmental destruction in the long run. Although tourism has the

potential to have a positive impact on the environment through public awareness, the natural environment can be conserved while economic benefits can be realized. Theoretical research revealed the impact of tourism on natural resources and pollution in the environment. The effects on the global and industrial scales are also being discussed. Tourism marketing, educational exposure, good policies, planning, management, and regulatory procedures have all been found to help conserve the environment.

Chen and Gursoy (2001) in his paper, has defined the loyalty destination as the level of perception of a visitor towards a tourist site as the recommendation for visiting the site. Basically, his paper investigated the linkage between the preference of the tourist to the destination and their loyalty towards the specific tourist destination. To carry out the survey, the onsite surveys were conducted of the travelers. The sample of the questionnaire was of 285 questionnaires. The data was collected and 265 questionnaires were used for analyzing the data because of their usefulness. Multiple regression analysis were run on the data which revealed that there were three destination preferences which had a positive relation with the tourist loyalty to the destination. First one was culture experiences, second one was safety and third was convenient transportation. Results of the study also showed that experience of the past trips of the tourist to a recreational site has a great role in determining the destination preference of the tourists.

Hence to conclude, it is clear that tourism has been given due importance in the literature and it is worthwhile to investigate Pakistan's indigenous situation and preferences. TCM is normally used to find out such preferences and their impact. Therefore, this study would contribute to the literature by analyzing evidence from Pakistan's major tourist destination.

CHAPTER 3

RESEARCH METHODOLOGY

The specific process and techniques which are to be used for the sake of collecting, processing and analyzing data and information for the purpose of research objective and also for the solution of our research questions.

3.1 Travel Cost Method

Natural resources such as parks, lakes, hilly areas, mountains and vice versa are used for the recreation. These are called as non-marketed goods. Unfortunately, these are not directly priced in the market. Hence, Travel cost method (TCM) is a valuation technique used for evaluating these non-marketed goods. Travel cost method (TCM) is initiated by Hotelling in 1947 and developed by Clawson and Knetsch. Travel cost method (TCM) is used for the evaluation of recreational sites such as elimination of a recreational site, changes of the environmental qualities of a recreational site and addition of a new recreational site. Moreover, people's willingness to pay (WTP) for visiting the recreational site is also evaluated in TCM. In travel cost method (TCM), the data is collected from the sample using questionnaires about the travel cost they bear for visiting the site, their preferences of the site and vice versa and then the data is evaluated. There are two types of the travel cost method i.e. individual travel cost method (ITCM) and zonal travel cost method (ZTCM).

3.2 Individual Travel Cost Method

Individual travel cost method evaluates the recreational demand of an individual. This is observed by the travel visits which an individual make in order to enjoy the recreational

facilities. In order to estimate the demand function, this method requires the variation in number of trips of an individual which he makes to the recreational site.

3.3 Zonal Travel Cost Method

In zonal travel cost method (ZTCM), the visitors are asked about their origin and then all are set up in a zone accordingly. The evaluation then occurs considering the travel cost same of the visitors of a specific zone. Moreover, Zonal visitor rate means that it is not possible to identify the individual visitor descriptive variables which can result into inefficiency.

However, being more specific, this study used the individual travel cost method (ITCM) due to its ability to produce accurate results.

TCM can be used to estimate the costs-benefits of a recreational site such as: elimination of an existing recreational site, addition of a new recreational site and changes in environmental quality at a recreational site. Normally for environmental valuation, CVM, averting behaviour and travel cost methods are used in different scenarios. However, our main focus here is to value of recreational sites for which travel cost method (TCM) is the best.

3.4 Theoretical Framework and Estimation Equation

Travel cost method (TCM) evaluates the recreational use benefit of a recreation site by considering demand for that site as the quantity of site visits to its price as cost of the visit.

A simple TCM model for a trip generation function (f) is as follows,

$$V=f(C, X)$$

Where,

V = number of visits to recreational site,

C = costs per visit,

X = other socio-economic variables explaining V .

Number of visits to a particular recreational site is the dependent variable. Costs and the socio-economic variables are the independent variables.

3.5 Data Analysis techniques and tools

Regression will be used to analyze the data. Moreover, to estimate the travel function, linear regression model has been used in the research. This model has different forms like linear function, linear-log, log-log, log-linear and reciprocal transformation. These models can also be linear or non-linear from the point of view of the input variables. Hence in this study, in order to estimate the social and economic variables to the number of the site visits, we will use the linear model as,

$$V_i = f(TC_i + P), X_{1i}, \dots, X_{ni}$$

Where,

V_i = Number of visits made to recreational site by an individual i annually.

TC_i = Travel cost of an individual per visit.

P = Participating cost of visitors.

X_{1i}, \dots, X_{ni} = Social and economic variables like income, Age, education of visitors.

Hence, the regression equation will be estimated as,

$$V_i = b_o + TC_i + NP_t + A_i + E_i + I_i + D_i + RF_i + \epsilon$$

Where,

V_i = Number of visits made by an individual in a year

A_i = Age of individual

NP_t = Number of people on trip.

E_i = Education of individual

I_i = Income of an individual

TC_i = Travel cost of the individual

D_i = Distance covered by an individual

RF_i = Recreational facilities for an individual

Description of variables:

The following discussion aims to elaborate the variables used in preset research.

Dependent variable (V_i): is the number of visit to a recreational site during the past one year. It ranges from 1 to 7 visit to the specific site where the interview is conducted, therefore, the dependent variable is treated as continuous variable.

List of independent variables:

1. Distance (D_i): this variable presents the distance covered by respondents in kilometers.

It is a continuous variable. This reflects that both the local resident from Islamabad and Rawalpindi as well as the outside visitors utilize the recreational sites of Islamabad.

This variable is expected to have negative effect on the dependent variable.

2. **Travel cost (TC_i):** the second most important variable of the model is the total travel cost. The total travel cost is calculated in per capita terms for the regression. It reflects great variable in spending to benefit from a recreational site. The variable is expected to have negative effect on the dependent variable.
3. **Income (I_i):** is defined into categories to capture the difference among different income groups. We expect income to have positive sign.
4. **Age (A_i):** is the age of an individual and also defined into categories to assess the difference among the different age groups.
5. **Education (E_i):** this variable presents the educational qualification of the visitors visiting the specific recreational spot. We expect that this variable will have a positive effect from the dependent variable.
6. **Number of people on trip (NP_t):** This variable is defined as the people who have travelled with the individual on the trip. They may be family, friends or vice versa.

Description of variable Recreational facilities (RF_i): The following variables defined are the recreational facilities that are available for the tourist on both the locations of the study area.

7. **Peaceful and calm factor:** this variable is defined as the factor of the recreational spot that the visitors seek to benefit from in visiting the specific recreational site. We expect that this factor will have a positive impact on the dependent variable.
8. **Kids playing area factor:** this variable presents the factor of the area specified for kids playing on the specific recreational spot from which a user can have a benefit. This variable is expected to have a positive impact to the dependent variable.

- 9. Trekking factor:** this variable reflects the trekking factor of recreational site from which a visitor gets benefit and gives more importance to a recreational site having such factor. This variable is expected to have a positive impact on the dependent variable.
- 10. Hilly view factor:** this variable reflects the factor of hilly view that the visitors seek for pleasure from a recreational site and thus gives the preference to the particular factor. This variable is expected to have significant impact on the dependent variable.
- 11. View of Islamabad factor:** this variable presents the factor of viewing Islamabad from a hill top and would be a preferred factor for visiting any recreational site. This variable would impact the dependent variable on a positive sign.
- 12. Lake view factor:** this factor explains the amenity of lake view enjoyed by the visitors on visiting a specific recreational site and thus making it the preferred factor. This variable would have a significance to the dependent variable.
- 13. Adventure sports factor:** this factor explains the pleasure of adventure sports offered by a recreational site that visitors enjoy upon their visit to a specific recreational site. Thus, their preference of factor can be obtained from their decision of spending time to a recreational site. We assume that this variable will have a significant relation with the dependent variable.
- 14. Boating and fishing factor:** this factor reflects the amenity of boating and fishing that is offered by the recreational site and by this, the preference and decision of the visitors spending time at the specific recreational site can be obtained. This variable is assumed to have a positive impact on the dependent variable.

15. Birds cage factor: This factor presents the factor of birds cage present at a recreational site and the pleasure of the visitors that enjoy the amenity at the specific recreational site.

A combined as well as separate regression (for each place) has been run and the results are explained in order to estimate whether tourists value the hilly sites, trekking or natural scenic view or the plain sites like Lakeview which have their own value and people can enjoy it with their families.

3.6 Research Strategy

For this study, the survey strategy has been adopted and data is collected through questionnaires.

3.7 Research Design

Research design is a complete strategy that defines where, when and how data is to be analyzed and collected. Research study was mainly based to know the preferences of the tourists visiting a site. This section deals with the preference of tourists regarding tourist sites of two locations Daman-e-Koh and Lake View Park in Islamabad. Structured interviews were administered from tourists at specific sites. Random sampling technique was used. Information was collected from respondents personally with face to face interaction to know the public preferences. Data was then further analyzed accordingly.

3.8 Questionnaire method

Data has been collected through printed questionnaires. A sample of 300 questionnaires has conducted for the research. 150 questionnaires are collected from Daman-e-Koh and other 150 questionnaires are collected from Lake View Park.

The questionnaire contains two main sections, first section include the socio-economic factors of the visitors like education, job, family members, income and vice versa. Second section include the questions related to the park distance, Recreational facilities, time, vehicle type and cost.

As the outbreak of Covid-19 pandemic has directly affected the tourism sector and it also has affected the tourist's counts hence, CDA had no authentic data set on the expected number of visitors to different sites. Hence, in the absence of proper knowledge on population, a decent sample of 300 questionnaires was randomly selected for the study. Tourists were not very forthcoming and cooperative to spare their personal time which they had allocated to leisure. Therefore, convenient sampling was observed by interviewing only those who were willing to take interviews.

3.9 Population Frame

The population frame of the research are the visitors that came to visit the sites, they are being interviewed.

3.10 Sampling Technique

In this research, convenient sampling technique was used to collect the data from both the visitors coming from inside and outside Islamabad.

CHAPTER 4

RESULTS AND DISCUSSIONS

4.1 Demographic analysis:

In the demographic analysis, different set of methods and techniques are used to measure the different aspects and dynamics of targeted population. This study depends upon 300 respondents and the technique which was used to collect the data was random sampling technique because of its convenience for that circumstance. As shown in the below table, Male respondents in the data were 211 with a percentage of 70.3percent and female respondents were 89 having a percentage of 29.7 percent (**Table 4.1**).

Table 4-1: Gender

	Frequency	Percent
Male	211	70.3
Female	89	29.7
Total	300	100.0

Source: Author's calculation (N=300)

As **Table 4.2** presented that age is divided into groups, Table elaborates that 26.3 percent respondents were in the age group of 18 to 25 years. 29.0 percent respondents were in the age group of 26 to 35 years. Similarly, 21.0percent and 15.0percent respondents were ranging in the age group of 36 to 45 years and 46 to 55 years respectively. 7.7percent and 1.0percent respondents existed in the age group of 56 to 65 years and in the age group of

66 to 75 years respectively (**Table 4.2**). Hence, this will be one of the variables to assess its impact on the dependent variable.

Table 4-2: Age of the Participants

	Frequency	Percent
18 – 25	79	26.3
26 – 35	87	29.0
36 – 45	63	21.0
46 – 55	45	15.0
56 – 65	23	7.7
66 – 75	3	1.0
Total	300	100.0

Source: Author’s calculation (N=300)

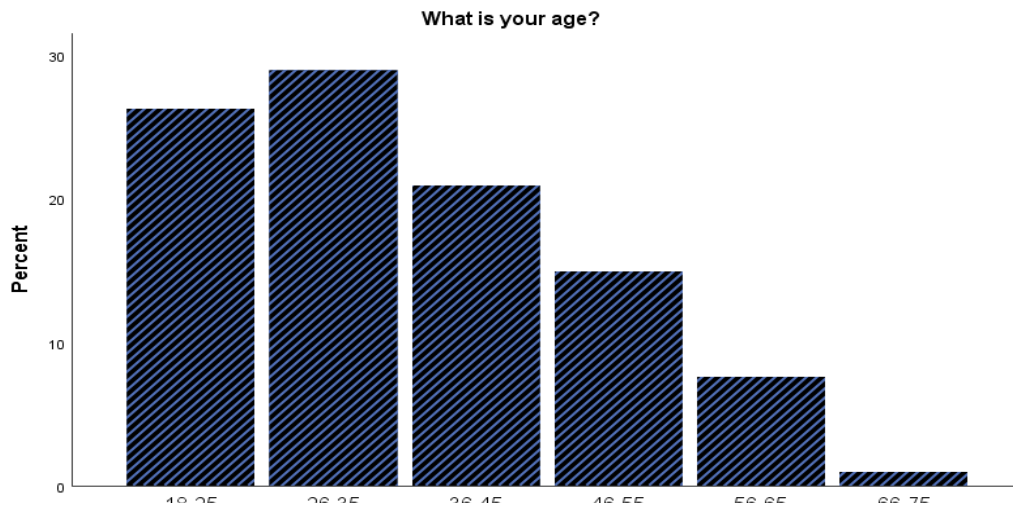


Figure 4.1: age graph

Table 4.3 elaborates the Education level of the respondents. 3.7 percent respondents were illiterate having no formal education. 3.7 percent, 7.0 percent and 8.0 percent respondents were at primary, middle and matric educational level respectively. Similarly, 24.3 percent, 45.3 percent and 8.0 percent respondents were at Intermediate, Graduation and Post-graduation educational level respectively.

Table 4-3: Education

	Frequency	Percent
No formal education	11	3.7
Primary	11	3.7
Middle	21	7.0
Matric	24	8.0
Intermediate	73	24.3
Graduation	136	45.3
Post-graduation	24	8.0
Total	300	100.0

Source: Author's calculation (N=300)

Table 4.4 presents the job status of the respondents. According to the data, 18.7percent respondents were students with no formal income. 39.7percent respondents were employed. 7.0percent respondents were freelancer and 12.7percent respondents were

unemployed respectively. Similarly, 2.7percent respondents were pensioner and 19.3percent were businessman. Hence, this will have the impact on the dependent variable.

Table 4-3: Job status

	Frequency	Percent
Student	56	18.7
Employed	119	39.7
Freelancer	21	7.0
Unemployed	38	12.7
Pensioner	8	2.7
Businessman	58	19.3
Total	300	100.0

Source: Author's calculation (N=300)

Table 4.5 shows the individual monthly income of the respondents in Pakistani rupees which shows that 27.3 percent respondents have no recent income. 3.7 percent respondents earn less than Pkr 20,000. 21.3 percent respondents earn from 20,001 to 50,000. Similarly, 22.3 percent and 14.3 percent respondents earn between 50,001 to 80,000 and 80,001 to 110,000 respectively and 14.3 percent respondents were those who earn more than 110,000 (**Table 4.5**).

Table 4-4: Income of individual

	Frequency	Percent
No income recently	82	27.3
Less than 20,000	11	3.7
20,001 - 50,000	64	21.3
50,001 – 80,000	67	22.3
80,001 – 110,000	43	14.3
More than 110,000	33	11.0
Total	300	100.0

Source: Author's calculation (N=300)

Table 4.6 presents the monthly family income of the respondents in Pakistani rupees as 1.0 percent respondents have income less than Pkr 20,000. 6.7 percent respondents have family income between 20,001 to 50,000. Similarly, 18.3 percent and 28.7 percent respondent's family income is between 50,001 to 80,000 and 80,001 to 110,000 respectively and remaining 136 respondents with a percentage of 45.3percent were those whose family income is more than 110,000 (**Table 4.6**).

Table 4-5: Family income of individual

	Frequency	Percent
Less than 20,000	3	1.0
20,001 – 50,000	20	6.7
50,001 – 80,000	55	18.3
80,001 – 110,000	86	28.7
More than 110,000	136	45.3
Total	300	100.0

Source: Author's calculation (N=300)

Table 4.7 shows that whether the person visiting the recreational spot is on a first visit or he has visited the recreational spot before. Table below shows that 27.7 percent of the people are on their first visit to the place and 72.3 percent people have previously visited the place and this time is not their first time.

Table 4-6: First visit

	Frequency	Percent
Yes	83	27.7
No	217	72.3
Total	300	100.0

Table 4.8 shows that how many times the visitors have visited the site in the past 12 months including their current visit to the recreational site. The table below shows that 39.3 percent people have not visited to the place in recent 12 months, 30.3 percent people have visited the place one time, 19.7 percent people have visited the place 2 times in past 12 months, 7.0 percent, 2.3 percent and 0.7 percent people visited the place 3, 4 and 5 times respectively. Lastly, 0.7 percent people have visited the place 6 times in past 12 months.

Table 4-7: Past visits

	Frequency	Percent
0	118	39.3
1	91	30.3
2	59	19.7
3	21	7.0
4	7	2.3
5	2	0.7
6	2	0.7
Total	300	100.0

Table 4.9 shows that 14.85 percent people visited the place due to the factor of the hilly view offered by the place, 7.6 percent people visited due to the factor of trekking available and offered by the place. 13.94 percent, 9.5 percent and 5.04 percent people visited the

place for the factors offered by the place i.e. the view of Islamabad, The lake view and Adventure sports offered by the place respectively. Moreover, 6.09 percent, 11.42percent, 7.9percent and 7.56percent of people visited the place for the amenities i.e. boating and fishing, picnic spots, kids playing area and birds cage, respectively. Lastly, 15.09percent people visited because of the peaceful and calm environment of the place.

Table 4-8: Factors of the recreational sites

Factors for visiting sites of Islamabad	Frequency	Percent
The hilly view	212	14.85634198
Trekking	109	7.638402242
The view of Islamabad	199	13.94533987
The lake view	136	9.530483532
Adventure sports offered by the place	72	5.045550105
Boating and Fishing	87	6.096706377
Picnic spots	163	11.42256482
Kids playing area	114	7.988787666
Birds cage	108	7.568325158
Peaceful and calm	227	15.90749825
Total	1427	100

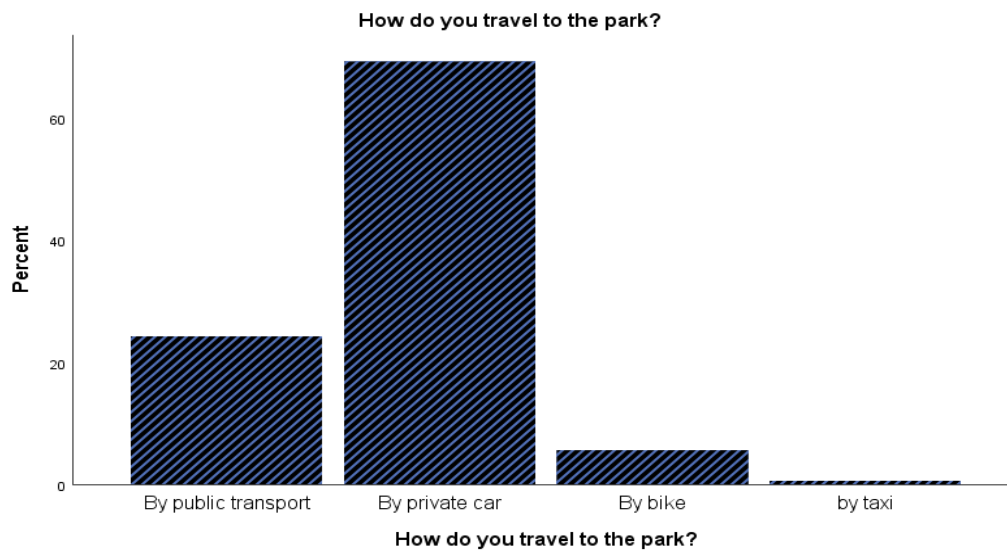
Source: Authors calculation N=300

As people travel on different modes, **Table 4.10** shows those different modes of travelling of visitors to the specific recreational site. Below table shows that 24.3 percent people have travelled by public transport, 69.3 percent people travelled by their own private car. 5.7 percent people travelled by bike and 0.7 percent people travelled by taxi. Below is the table and graphical representation of mode of travels.

Table 4-9: Mode of travel

	Frequency	Percent
By public transport	73	24.3
By private car	208	69.3
By bike	17	5.7
By taxi	2	0.7
Total	300	100.0

Source: Authors calculation N=300



As people travelling from different places to a recreational site have different travel costs. **Table 4.11** presents the expense those visitors beard for visiting the place from their city of residence. Expense in the above table is in Pakistani currency which is rupees (Rs). Table shows that 46 percent people had an expense of Rs 5000 or less. 45.33 percent people had an expense of an amount ranging from Rs 5,001 to 15,000. Moreover 7.33 percent and 0.68 percent people beard an expense of amount ranging from Rs 15,001 to 25,000 and Rs 25,001 to 35,000 respectively.

Table 4-10: Total travel cost

	Frequency	Percent
5000 or less	138	46
5001 – 15,000	136	45.33
15,001 – 25,000	22	7.33
25,001 – 35,000	2	0.68
35,001 – 45,000	1	0.33
45,001 – 50,000	1	0.33
Total	300	100.0

Coming from the different areas, the travel time of the visitors will be different. **Table 4.12** reflects the travel time a visitor had while coming to the specific recreational site. Table presents the travel time of the people visiting the particular place which is in minutes (mints). Table elaborates that 29.33 percent people reached the place in 100 mints or less,

54.33 percent people reached in 103 to 300 mints. 14.66 percent reached the place in 301-500 mints, 0.66 percent visitors have reached the place in 501 to 700 and 1 percent visitors have reached in 701 or more minutes respectively.

Table 4-11: Travel time

Minutes	Frequency	Percent
100 or less	88	29.3333333
101 – 300	163	54.3333333
301 – 500	44	14.6666667
501 – 700	2	0.6666667
701 or more	3	1
Total	300	100.0

Different visitors coming from different locations will have different distance. **Table 4.13** represents the travel distance of the people visiting the particular place. Travel distance is in kilometers (km). Figure elaborates that 29.0 percent people reached the place in 100 kms or less, 37.0 percent people reached in 101 to 300 kms. 24.0 percent, 8.33 percent and 1.66 percent have reached the place in 301 to 500, 501 to 700 and 701 or more kms respectively.

Table 4-12: Travel Distance

	Frequency	Percent
100 or less	87	29.0
101 – 300	111	37.0
301 – 500	72	24.0
501 – 700	25	8.33
701 or more	5	1.66
Total	300	100.0

Source: Author's calculation N=300

As the money spending differs from visitor to visitor, the below discussion will elaborate the spending on the way to specific recreational site. **Table 4.14** presents the money spent on the way by the people visiting the particular place. Money spent is in Pakistani rupees (Rs). Figure elaborates that 90.66 percent people spent Rs 0 to 1000 on the way from their place to the destination. 8.66 percent people spent about Rs 1001 to 3000 on their way to their destination and 0.66 percent people spent Rs 3001 to 5000 on their way to their destination.

Table 4-13: Money spent on way

	Frequency	Percent
0 – 1000	272	90.66
1001 – 3000	26	8.66
3001 – 5000	2	0.66
Total	300	100.0

Source: Author's calculation N=300

Below table shows the expenses visitors have beard (per capita) from their city of travelling to that specific recreational site. **Table 4.15** represents the expense which is in Pakistani currency rupees (Rs). Table shows that 27.66 percent people had an expense of Rs 1000 or less. 59.33 percent people had an expense of an amount ranging from Rs 1,001 to 3,000. Moreover 11.66 percent people had an expense of an amount ranging from 3,001 to 5,000 and 1.33 percent people beard an expense of amount ranging from Rs 5,001 or more, respectively.

Table 4-14: Travel cost per capita

Rs.	Frequency	Percent
1000 or less	83	27.66
1001 – 3000	178	59.33
3001 – 5000	35	11.66
5001 or more	4	1.33
Total	300	100.0

Source: Authors calculation N=300

Table 4.16 presents the expense (per capita) on food those visitors beard on their visit to the place from their city of residence. Expense in the above table is in Pakistani currency which is rupees (Rs). Table shows that 79.66 percent people had an expense of Rs 500 or less. 18.33 percent people had an expense of an amount ranging from Rs 501 to 1,000. Moreover 1.33 percent people had an expense of an amount ranging from 1,001 to 1,500 and 0.66 percent people beard an expense of amount ranging from Rs 1,501 to 2,000, respectively.

Table 4-15: Food cost in the park

Rs.	Frequency	Percent
500 or less	239	79.66
501 – 1000	55	18.33
1001 – 1500	4	1.33
1501 – 2000	2	0.66
Total	300	100.0

Source: Authors calculation N=300

Table 4.17 represents the entrance fee paid by the visitors. The entrance fee is in Pakistani currency which is rupees (Rs). Figure shows that 50.0 percent have paid no entrance fee, 46.3 percent people have paid 20 Rs as an entrance fee. 1.0 percent people have paid an entrance fee of 30 Rs. 0.7 and 1.3 percent people have paid an entrance fee of 40 Rs and 50 Rs, respectively and remaining 0.3 percent and 0.3 percent people have paid an entrance fee of 60 Rs and 100 Rs, respectively.

Table 4-16: Entrance fee paid

Rs.	Frequency	Percent
0	150	50.0
20	139	46.3
30	3	1.0
40	2	0.7
50	4	1.3
60	1	0.3
100	1	0.3
Total	300	100.0

Source: Authors calculation N=300

Table 4.18 presents the money spent on the activities offered by the place like games, kids playing area and vice versa in Pakistani rupees (Rs). Figure elaborates that 69.33 percent people have spent 100 Rs or less. 20.66 percent people have spent an amount ranging from Rs 101 to 500. 7.66 percent people have spent an amount ranging from Rs 501 to 100. Moreover, 1.0 and 1.33 percent people have spent an amount of ranging Rs 1,001 to 1,500 and Rs 1,501 to 2,000, respectively.

Table 4-17: Spending on activities (Games, kids playing area)

Rs.	Frequency	Percent
100 or less	208	69.33
101 – 500	62	20.66
501 – 1,000	23	7.66
1,001 – 1,500	3	1.0
1,501 – 2,000	4	1.33
Total	300	100.0

Source: Authors calculation N=300

Table 4.19 elaborates the parking fee which is paid by the visitors in Pakistani rupees (Rs) which shows that 73.0 percent have paid 0 Rs as parking fee. 0.3 percent people have paid 10 Rs as parking fee. 16.0 percent and 5.3 percent people have paid parking fee of Rs 20 and 30, respectively. Moreover, 5.3, 5.0 and 0.3 percent people have paid parking fee of Rs 30, Rs 50 and Rs 100, respectively.

Table 4-18: Parking fee paid

Rs.	Frequency	Percent
0	219	73.0
10	1	0.3
20	48	16.0
30	16	5.3
50	15	5.0
100	1	0.3
Total	300	100.0

Source: Authors calculation N=300

As per the data from the questionnaire, the visitors were asked about their acceptance regarding the current entrance fee and their responses are ranked into Too high, Acceptable and Too low. Below **table 4.20** elaborates the intensity of entrance fee which was taken as a response from the people that if the entrance fee is acceptable or not. Figure shows that 5.3 percent have said that the entrance fee is too high, it should be low. 70.0 percent people have said that the entrance fee is acceptable and remaining 24.7 percent people said that the entrance fee is too low which makes a 100.0 percent in total.

Table 4-19: Intensity of Entrance fee

Intensity	Frequency	Percent
Too high	16	5.3
Acceptable	210	70.0
Too low	74	24.7
Total	300	100.0

Source: Authors calculation N=300

As per the data, the visitors of the specific recreational site have been asked that if entrance fee is imposed or increased, how much you will suggest as an appropriate entrance fee. **Table 4.21** shows the appropriate entrance fee in Pakistani rupees (Rs) which is suggested by the visitors visiting the place. Figure shows that 41.7 percent people suggested no price as an entrance fee. 33.7 percent people have suggested an entrance fee of Rs 20. 4.0 percent and 3.3 percent people have suggested an entrance fee of Rs 30 and Rs 40, respectively. Moreover, 11.7 percent and 1.3 percent people have suggested an entrance fee of Rs 50 and Rs 60, respectively and remaining 4.0 percent and 0.3 percent people have suggested an entrance fee of Rs 100 and Rs 200, respectively.

Table 4-20: Appropriate Entrance Fee

	Frequency	Percent
0	125	41.7
20	101	33.7
30	12	4.0
40	10	3.3
50	35	11.7
60	4	1.3
100	12	4.0
200	1	0.3
Total	300	100.0

Source: Authors calculation N=300

While interviewing the respondents, some of the suggestions in our questionnaire reflected that clean water facilities are required on both the sites. Moreover, people of both the sites are concerned about the security issues they faced especially on our first site Daman-e-Koh. Some respondents suggested that there should be no entrance fee in our second site Lake View Park.

4.2 Empirical Results

Summary statistics:

Dependent variable is number of visits to a recreational site during the past one year. It ranges from 1 to 7 visit to the specific site where the interview was conducted. The variable distance presents the distance covered by respondents in kilometers. It is a continuous variable. It ranges from 15 kilometers to 912 kilometers. This reflects that both the local resident from Islamabad and Rawalpindi as well as the outside visitors utilize the recreational sites of Islamabad. This variable is expected to have negative effect on the dependent variable. The total travel cost is calculated in per capita terms for the regression. The travel cost variable ranges from Rs.80 to Rs. 9000 per capita and hence reflect great variable in spending to benefit from a recreational site. The variable income is defined into categories to capture the difference among different income groups. The categories are 1: less than 20,000, 2: 20,001 - 50,000, 3: 50,001 – 80,000, 4: 80,001 – 110,000 and 5: More than 110,000. The base category is defined as visitors having less than 20,000 income per month. Age is also defined into categories to assess the difference among the different age groups. These groups are 1: 18 - 25, 2: 26 - 35, 3: 36 – 45, 4: 46 – 55, 5: 56 – 65. The base category is defined as the visitors having age group of 18 – 25. Education variable presents the educational qualification of the visitors visiting the specific recreational spot. Education of the visitors are ranged from no education (0) to post-graduation (18) class. Number of people on trip variable is defined as the people who have travelled with the individual on the trip. These are ranged from 1 to 30 people.

Description of variable Recreational facilities (RF_i): The following variables defined are the recreational facilities that are available for the tourist on both the locations of the study area.

Peaceful and calm factor is the amenity of the recreational spot that the visitors seek to benefit from in visiting the specific recreational site. Kids playing area factor variable presents the factor of the area specified for kids playing on the specific recreational spot. Trekking factor reflects the trekking of recreational site from which a visitor gets benefit and gives more importance to a recreational site having such factor. Hilly view factor reflects the factor of hilly view that the visitors seek for pleasure from a recreational site. View of Islamabad factor presents the amenity of viewing Islamabad from a hill top and would be a preferred factor for visiting any recreational site. Lake view factor explains the amenity of lake view enjoyed by the visitors on visiting a specific recreational site and thus making it the preferred factor. Adventure sports factor explains the pleasure of adventure sports offered by a recreational site that visitors enjoy upon their visit to a specific recreational site. Boating and fishing factor: this factor reflects the amenity of boating and fishing that is offered by the recreational site and by this, the preference and decision of the visitors

Table 4-21 Summary statistics

Summary statistics					
Variable	Observations	Mean	Std. Dev.	Min	Max
No of visits in a year	300	2.073333	1.162955	1	7
Distance (km)	300	264.9867	192.4044	15	912
Travel cost per capita (Rs.)	300	2637.967	1530.933	80	9000
No of people on the trip	300	4.166667	2.32887	1	30
Income less than 20,000	300	.3111111	.4464152	0	1
Income 20,001_50,000	300	.2133333	.4103456	0	1
Income 50,001_80,000	300	.2233333	.4171758	0	1
Income 80,001_110,000	300	.1433333	.3509979	0	1
Income more than 110,000	300	.11	.3134125	0	1
Age 18_25	300	.2633333	.4411776	0	1
Age 26_35	300	.29	.4545202	0	1
Age 36_45	300	.21	.4079888	0	1
Age 46_55	300	.15	.357668	0	1
Age 56_65	300	.0866667	.2818161	0	1
Education	300	13.41333	3.860765	0	18
Peaceful and calm factor	300	.7433333	.4375237	0	1
Kids playing area factor	300	.2766667	.4480977	0	1
Trekking factor	300	.3233333	.4685303	0	1
Hilly view factor	300	.6566667	.475615	0	1
View of Islamabad factor	300	.6133333	.4877999	0	1
Lakeview factor	300	.3533333	.4788038	0	1
Adventure sports factor	300	.0866667	.2818161	0	1
Boating and fishing factor	300	.23	.4215357	0	1
Birds cage factor	300	.3066667	.4618802	0	1

4.3 Empirical Results

This section discusses the results of econometric models and their description. Results and discussion sections are divided into three subsections. First section deals with the combined effect of independent variables on dependent variable for study area i.e. Daman-e-Koh and Lake View Park. Section two deals with the individual regression of one location i.e. Daman-e-Koh and to assess the impact of the independent variables on the dependent variable. Section three has individual regression to investigate the relation of independent variables onto the dependent variable.

4.4 Overall regression (Combined dataset)

Table 4.23 shows the empirical results of our combined regression model in which we have collected data from both two sites of our study area. The dependent variable is number of visits and independent variables are number of people on trip, distance, travel cost per capita, income, age, education, peaceful and calm factor, kids playing area factor, trekking factor, hilly view factor, view of Islamabad factor, Lakeview factor, adventure sports factor, boating and fishing factor and birds cage factor.

Regression model elaborates at 5% significant level that distance has a negative impact on the number of visits with a coefficient of 0.001. This means that one unit increase in the distance will decrease the number of visits by 0.001 units. It implies that greater the distance, lesser will be the number of visits onto the recreational sites and it also implies that the people living far from a recreational site will have a less number of visits.

Empirical results shows that at 10% significant level, the visitors with an income range of 50,001 to 80,000 have a positive impact on the number of visits with a coefficient of 0.549

This implies that higher the income of the visitors of a specific range, more will be their visits to the recreational sites. Moreover, Results shows at 5% significant level that the visitors with an income range of more than 110,000 have a positive impact on the number of visits which shows that with an increase in one unit of income range of more than 110,000, the number of visits will be increased.

The analysis also shows that the factors of the recreational sites (independent variables) have an impact on the number of visits made by an individual (dependent variable). Results shows that at 5% significant level, the factor Peace and calm of the recreational site has a positive impact on the number of visits. This implies that recreational sites characterized with the 'peace and calm' factor will have higher number of visitors, which means that people prefer to go to the recreational sites for the amenity of peace and calm environment. The factor of the recreational site, kids playing area, at a significant level of 1% shows that it has a positive impact on the number of visits which means that people prefer to visit a place with a kids playing area.

Surprisingly, three important factors which were believed to positively affect tourists' visits have come up with unexpected signs. Analysis shows that at a significant level of 5%, the factor of recreational site, hilly view, has a negative impact on the number of visits with a coefficient of 0.470. Moreover, another factor of the recreational site lake view, with a significant level of 1%, has a negative impact on the number of visits having coefficient of 0.691. Another factor, Adventure sports, with a significant level of 5%, shows that it has a negative impact on the number of visits with a coefficient of 0.574. Surprisingly, these three factors have a negative impact on the number of visits, and is not in line with what is expected. Hence to investigate this, in section two and three, we will run separate

regressions of sites of Daman-e-Koh and Lake View Park to eliminate unneeded distortions in the data.

There are other variables which have also remained insignificant are described here. The factor travel cost per capita of a person visiting a recreational site could not achieve significant coefficient which is not expected. Another important variable i.e. 'number of people accompanying during the visit' has also remained statistically insignificant. Income range from 20,001-50,000, (in a comparison of base category of income which is less than 20,000), and the income range of 80,001-110,000 have statistically insignificant impact on the number of visits. The income range of the person was expected to be directly proportional to the number of visits as when the income range of a person increases, but statistical evidence is not attained for this argument as per our data and techniques. The age group of 26-35 (comparing to the base category of age which is 18-25) and the age groups of 36-45, 46-55 and 56-65 have negative but statistically insignificant impact on the number of visits. The coefficient of education variable though positive but has insignificant effect on the number of visits.

The independent factors of the recreational site i.e. trekking factor has a coefficient of 0.135 which indicates that it has a positive but insignificant impact on the number of visits. The view of Islamabad factor shows insignificant impact on the number of visits. Similarly, the boating and fishing factor have a positive but insignificant impact on the number of visits while the bird's cage factor has a negative but insignificant impact on the number of visits.

The regression results are presented in table 4.23.

Table 4-22: Combined regression of Daman-e-Koh and Lakeview Park

Variable	Coefficient
No of people on trip	0.0369
Distance	-0.0011**
Travel cost per capita	0.0009
Income 20,001_50,000	0.2433
Income 50,001_80,000	0.5490***
Income 80,001_110,000	0.1748
Income more than 110,000	0.4936**
Age 26_35	-0.1791
Age 36_45	-0.1691
Age 46_55	-0.0133
Age 56_65	-0.0645
Education	0.0110
Peaceful and Calm factor	0.4193***
Kids playing area factor	0.4813***
Trekking factor	0.1355
Hilly view factor	-0.4706**
View of Islamabad factor	-0.0392
Lakeview factor	-0.6916***
Adventure sports factor	-0.5740**
Boating and fishing factor	0.23441
Birds cage factor	-0.3015*
Constant	1.85689***
Number of observations	300
F(20, 279)	2.65
Prob > F	0.0002
R-squared	0.1667
Adj R-squared	0.1038
Root MSE	1.101
<p>Note: * p<0.1; ** p<0.05; *** p<0.01; Base category income is less than 20,000 Base category of Age is 18-15</p>	

4.5 Regression results of Daman-E-Koh:

Table 4.24 shows the interpretation of our model results of the site Daman-e-Koh in which we have taken data from the visitors of that specific site. The dependent variable is number of visits and independent variables are number of people on trip, distance, travel cost per capita, income, age, education, hilly view factor, trekking factor, View of Islamabad factor and peaceful and calm factor.

The results of the model estimated elaborates that at 5% significant level, distance has a negative impact on the number of visits with a coefficient of 0.002 which shows that one km increase in the distance will decrease the number of visits by 0.002 units. It further clarifies that greater the distance, lesser will be the number of visits onto the recreational sites and it also presents that the people living far from a recreational site will have a lesser number of visits. Nevertheless, the impact is very small, hence we can expect that it is not a great off setter if other qualities of a site are more attractive.

The variable of income range 50,001-80,000, at a significant level of 5% and a coefficient 0.808 shows that it has a significant and positive impact on the number of visits which means that if the income increases, the number of visits will also increase. Income range of 80,001-110,000 (in comparison to the base category) shows that it has a positive and significant impact on the number of visits with a significant level of 10%. Similarly. Income range of more than 110,000 has a significant level of 1% which shows that if the income increases, the number of visits will increase. These results are inline with the one obtained in Table 2.23.

The Hilly view factor of the recreational site has a significant level of 5% and coefficient of 0.760 which shows that the factor has positive and significant impact on the number of

visits. Furthermore, it can be stated that the visitor prefers more going to the hilly view. The trekking factor has a significant level of 10% with a coefficient of 0.377 which shows that it has a positive impact on the number of visits and it can be considered in the preference of the visitors. This is very important factor and the having separate regression have resulted in more logical results.

The other insignificant variables includes 'number of people accompanying the trip' have a positive but insignificant impact on number of visits. Travel cost per capita having coefficient of 0.0002 has a positive but insignificant impact on number of visits. The income range of 20,001-50,000 has impact positive but insignificant on the number of visits. The age groups of 26-35, 36-45, 46-55 and 56-65 with coefficients of 0.131, 0.107, 0.072 and 0.215 have all negative but insignificant impact on the number of visits. On the contrary, significant results were reported by Limaie et al., (2014). The education variable have a positive but insignificant impact. Furthermore, the factors i.e. view of Islamabad and peaceful and calm have a positive but insignificant impact on the number of visits.

The regression results are presented in table below (Table 4.24).

Table 4-23: Regression results of Daman-e-Koh

Variable	Coefficients
No of people	0.1312
Distance	-0.0026**
Travel cost per capita	0.0001
Income 20,001_50,000	0.1842
Income 50,001_80,000	0.8084**
Income 80,001_110,000	0.6693*
More than 110,000	1.5414***
Age 26_35	-0.1316
Age 36_45	-0.1072
Age 46_55	-0.0726
Age 56_65	-0.2149
Education	0.0079
Hilly view factor	0.7600**
Trekking factor	0.3775*
View of Islamabad factor	0.1858
Peaceful and calm factor	0.2955
Constant	0.6381
Number of observations	150
F(17, 132)	3.91
Prob > F	0.0000
R-squared	0.3197
Adj R-squared	0.2379
Root MSE	0.9244
<p>Note: * p<0.1; ** p<0.05; *** p<0.01; Base category income is less than 20,000 Base category of Age is 18-15</p>	

4.6 Regression results of Lakeview Park:

Table 4.25 reflects the interpretation of the model results of the Lakeview Park site in which primary data has been taken from the visitors of that site. The dependent variable is number of visits and independent variables are number of people on trip, distance, travel cost per capita, income, age, education, Lakeview factor, Adventure sports factor, View of Islamabad factor and peaceful and calm factor.

The results of the model estimated significantly elaborates that at a level of 10%, the income range 20,001-50,000, comparing to the base category of income i.e. less than 20,000, has a positive impact on the number of visits with a coefficient of 0.603 which shows that it has significant and positive impact on the number of visits. These results are inline with the one obtained in Table 2.23 and 2.24. Taking it to further clarification, greater the income, greater will be the number of visits onto the recreational sites and it also presents that if income of person increases, he might have more visits to the recreational sites.

Results also shows that the education variable having significance level at 5% and a coefficient of 0.048 has a significantly positive impact on the number of visits. This may leads to a conclusion that people having more level of education may have a high number of visits to recreational sites comparing to the non-educated ones. The other i.e. Adventure sports factor have a significance level of 5% having coefficient of 0.878 indicates that it has a significantly negative impact on the number of visits. So, this may be summarized as the adventure sports offered by the Lakeview park i.e. games etc. are not the preference of people visiting a recreational site i.e. Lakeview park or it involves higher spending so have a negative impact on decision to visit the place with adventure sports. Moreover, the

peaceful and calm factor is significant at 10% level of significance having a coefficient of 0.411 which means that it has a positive impact on the number of visits. This leads to the conclusion that the amenity of peaceful and calmness has a preference with respect to the people visiting a recreational site i.e. Lakeview Park.

The other insignificant variables include number of people, with a coefficient of 0.050 indicating that it has a positive but insignificant impact on number of visits. The distance variable with a coefficient of 0.0006 shows that it has a negative but insignificant relation on the number of visits. Income range 50,001-80,000 have a coefficient of 0.512 indicates that it has a positive but insignificant impact on the number of visits. Similarly, the income ranges of 80,001-110,000 and more than 110,000 having a coefficient of 0.112 and 0.178 respectively, have a negative and insignificant impact on the number of visits. These results were similar to the results estimated by Limaie et al., (2014). The age groups 26-35, 36-45, 46-55 and 56-65 shows that it has a negative but insignificant impact on the number of visits. The factor of the recreational site i.e. Lakeview factor having coefficient of 0.121 shows that it has a positive but insignificant impact on the number of visits. Furthermore, the factors like boating and fishing, kids playing area and birds cage factor with the coefficients of 0.348, 0.123 and 0.141 shows that they have a positive but insignificant relation with the number of visits.

The regression results are presented in the table below (Table 4.25).

Table 4-24: Regression results of Lakeview

Variable	Coefficients
No of people	0.0503
Distance	-0.0005
Travel cost per capita	0.0001
Income 20,001_50,000	0.6031*
Income 50,001_80,000	0.5124
Income 80,001_110,000	-0.1127
Income more than 110,000	-0.1787
Age 26_35	-0.2577
Age 36_45	-0.2300
Age 46_55	-0.0754
Age 56_65	-0.4579
Education	0.0489**
Lakeview factor	0.1219
Adventure sports factor	-0.8789**
Boating and fishing factor	0.3488
Kids playing area factor	0.1233
Birds cage factor	0.1412
Peaceful and calm factor	0.4110*
Number of obs	150
F(18, 132)	18.27
Prob > F	0.0000
R-squared	0.7135
<p>Note: * p<0.1; ** p<0.05; *** p<0.01; Base category income is less than 20,000 Base category of Age is 18-15</p>	

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

In this chapter, conclusion on the basis of findings of the current study are presented and some possible recommendations are highlighted in the light of the research.

Tourism is always been an important source of income as well as employment. Tourism and the recreation is identified as the dominant functions of the region. Moreover, tourism industry of any nation is the backbone of economy of that nation and is turning into an industry which is generating a great revenue at global level (Arshad et al., 2018).

The objective of the current study was to examine and estimate the public choices of environmental amenities available at Daman-e-Koh and Lakeview Park of Islamabad and to highlight the dominant functions of recreational spots from user's point of view. Primary data was taken for the research. A sample of 300 questionnaires was prepared and data was collected from both the research sites i.e. 150 questionnaires from Daman-e-Koh and 150 questionnaires from Lakeview. Simple OLS regression was used for the data analysis. Combined regression having factors of both the sites was performed. Individual regressions of sites were also performed to make it a clear picture of preferences weather a tourist prefer amenities of Daman-e-Koh or Lakeview Park.

The results of the combined regression of both the sites revealed that two factors i.e. Peaceful and calm and Kids playing area are significant indicating that people prefer being on the place with these factors. Similar is the case here for Peaceful and calm variable. The results of Daman-e-Koh site reveals that the tourists of income range 50,000-80,000,

80,001-110,000 and more than 110,000 have a preference to go to the hilly areas i.e. Daman-e-Koh. The factors i.e. Hilly view and Trekking to the site Daman-e-Koh are significant which indicates that people have a preference of these two factors. Similar results were estimated by Limaie et al., (2014).

The results of Lakeview site reveals that the tourist of income range 20,001-50,000 are significantly going to the plain areas i.e. Lakeview Park to enjoy the amenities of the specific site. Moreover, people have a preference of peaceful and calm factor to go to a recreational site.

Hence the conclusion according to the present study states that the factors like Hilly view, trekking and peaceful and calmness are the preferred environmental amenities a tourist would want to go in Islamabad. As tourism is a sector that has a direct effect on the economy of the country. Hence, this study is expected to help in generating the revenue from a new proposed tourist destination.

5.2 Recommendations:

The tourism industry is the fastest growing industry all over the world. Pakistan, however seeks to improve its tourism industry. More tourist spots should be made in order to encourage tourism keeping in consideration the preferred factors revealed by the tourists.

Among all potential factors of recreational sites of the study area i.e. Hilly view, Trekking, The view of Islamabad, Evening dinner, Adventure sports, Lake view, boating and fishing, birds cage, kids playing area and peaceful and calmness, only few were significantly determining the tourists visits according to the results. Those factors are Hilly view, Trekking, kids playing area and peaceful and calmness.

It is recommended that government should make hilly view tourist spots which is the preference of the tourist visiting Islamabad so that they can enjoy the amenity and hence tourism may be promoted. Moreover, government should make the hilly view spots with a trekking factor so that the preference of the tourists may be full filled. Lastly, it is recommended that government should make such tourist spots peaceful and calm having a kids playing area keeping in view the preference of the tourists.

5.3 Future Research:

This research is expected to help government in making the tourists spots in Islamabad because of the preference of the tourists is known to the government. Moreover, this will help the policy makers to make the policy according to the preference of the tourists to achieve greater usage and make efficient use of public funds. Lastly, similar studies can be undertaken for other tourists' destination to know the preferences of tourists.

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Khyber Pakhtunkhwa Integrated Tourism Development Project (KITE).

APPENDIX I

Questionnaire

Disclaimer: This survey is conducted as part of an MPhil degree thesis at the PIDE School of Public Policy PSPP, Islamabad. This questionnaire aims to collect data about the preferences of people visiting to a particular tourist site. The following questions are purely for the academic purpose and information provided will be only used for research. It is ensured that the information of the respondents will be kept highly confidential. It is requested to kindly take out a bit time to respond the following questions and share your views with us. Your cooperation is highly appreciated in this regard.

Umar Daraz Khan

Questionnaire

Date _____

Time _____

Location _____

Part 1: Household Information

1. What is your age?

18-25

26-35

36-45

46-55

- 56-65
- 66-75
- 75 and over

2. What is your gender?

- Male
- Female

3. What is your level of Education?

- No Formal Education.
- Primary.
- Matric.
- Middle
- Intermediate
- Graduation
- Post-graduation.

4. What is your job status?

- Student
- Employed
- Freelancer
- Unemployed
- Pensioner
- Businessman

5. What is your approximate monthly income?

- No income recently
- Less than 20,000

- 20,001 - 50,000
- 50,001 – 80,000
- 80,001 – 110,000
- More than 110,000

6. What is your approximate family income?

- No income recently
- Less than 20,000
- 20,001 - 50,000
- 50,001 – 80,000
- 80,001 – 110,000
- More than 110,000

Part 2: General information

6. Where do you come from? _____

7. Is this the first time you have been to this place?

- Yes
- No

If no- how many times have you visited this place during the last 12 Months? _____ times.

8. When was the most recent trip to this place?

- Month _____
- Year _____

9. Will you come to this place again next year?

- Definitely
- Maybe

Never

10. The factors influencing your decision to spend time on this place in particular (multiple choices can be made):

- The hilly view.
- Trekking.
- The view of Islamabad.
- Evening dinner.
- The lake view.
- Adventure sports offered by the place.
- Boating and fishing.
- Picnic spots.
- Kids playing area.
- Birds cage
- Peaceful and calm.
- Other (please specify) _____

Part 3: Travel cost

11. Is Islamabad your only city in this trip? (To be filled by tourists from other cities)

Yes

No

If No, Islamabad is

Main destination

General destination

Minor destination

12. How do you travel to the park?

By public transport

By private car

On foot

By bike

- By electric bike
- By taxi

13: Have you visited this single venue during your visit in Islamabad? Yes / No

If No, please mention the number of multiple venues visited in Islamabad during your trip?

14: How many people are with you in this trip? _____

14 (a): Who have travelled with you in this trip?

- Family members.
- Kids.
- Friends.

15. If Family members, No of family members with you on this trip? _____

16.What is the total cost of your trip from your city of residence to this place?

16(a): What was your travel time to the place? _____

16(b): What is your travel cost to visit this place (per capita)? _____

16(c): How much distance have you covered to travel to this place? _____kms

17: How much money did you spent on the way (snacks, tea, stop overs)? _____

18. How much did you spend in the park? (Specify each section please):

- Food: _____
- Entrance fee: _____
- Activities (games, kids playing area etc.): _____
- Parking fee: _____
- Other (please specify): _____

19. How do you think about the entrance fee?

- Too high
- Acceptable

Note: If Islamabad is not your main destination, please

Too low

20. What entrance fee do you think would be appropriate for this place? _____

21. Any suggestions:

Thank you very much for your precious time.

APPENDIX II

Poisson regression for Daman-e-Koh:

Iteration 0	Log likelihood	-223.77255				-
Iteration 1	Log likelihood	-223.69529				-
Iteration 2	Log likelihood	-223.69528				-
Poisson regression		Number of obs				150
		Wald chi2(16)				279.40
Log likelihood	-223.69528	Prob > chi2				0.0000
nvst	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
npt	.062355	.0487099	1.28	0.200	-.0331147	.1578247
dst	-.0011633	.0006423	-1.81	0.070	-.0024222	.0000956
tct_p	.000017	.0000771	0.22	0.825	-.0001342	.0001682
y20001_50000	.089795	.1790017	0.50	0.616	-.2610418	.4406318
y50001_80000	.3622933	.1839035	1.97	0.049	.0018489	.7227376
y80001_110000	.2991492	.2037783	1.47	0.142	-.1002489	.6985472
more_than_110000	.6125013	.2277814	2.69	0.007	.166058	1.058945
age26_35	-.0549869	.168179	-0.33	0.744	-.3846116	.2746379
age36_45	-.0643407	.2002542	-0.32	0.748	-.4568318	.3281503
age46_55	-.0443392	.2168466	-0.20	0.838	-.4693508	.3806723
age56_65	-.0926428	.2381802	-0.39	0.697	-.5594674	.3741818
edu	.0057361	.015245	0.38	0.707	-.0241435	.0356157
fhv	.3322072	.1977342	1.68	0.093	-.0553447	.7197592
ftg	.1534318	.1344573	1.14	0.254	-.1100996	.4169632
fvi	.0836479	.151838	0.55	0.582	-.213949	.3812449
fpc	.1435389	.1701079	0.84	0.399	-.1898664	.4769443

APPENDIX III

Poisson regression of Lake View:

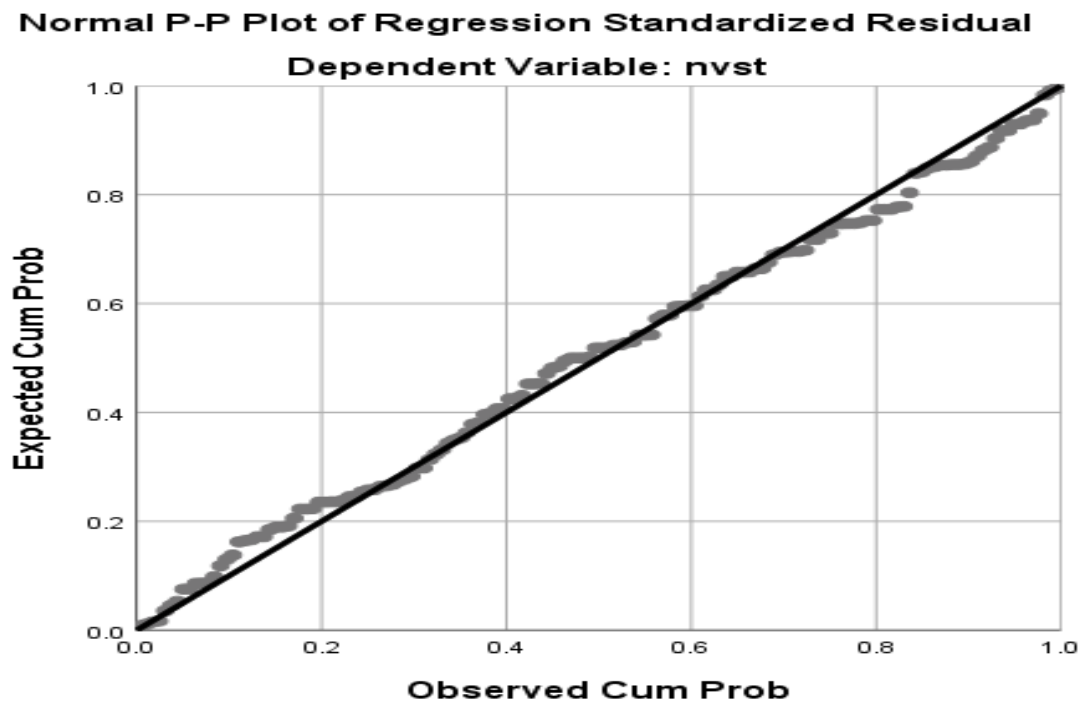
Iteration 0	Log likelihood	-224.3468	-		
Iteration 1	Log likelihood	-223.49983	-		
Iteration 2	Log likelihood	-223.49848	-		
Iteration 3	Log likelihood	-223.49848	-		
Poisson regression		Number of observations	150		
		Wald chi2(18)	125.26		
Log likelihood	-223.49848	Prob > chi2	0.0000		
nvst	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]
npt	.0177742	.0185485	0.96	0.338	-.0185802 .0541286
dst	-.0000398	.0003898	-0.10	0.919	-.0008037 .0007241
tct_p	.0000475	.0000475	1.00	0.317	-.0000457 .0001407
y20001_50000	.2882512	.1892992	1.52	0.128	-.0827684 .6592708
y50001_80000	.2149889	.2066147	1.04	0.298	-.1899685 .6199462
y80001_110000	-.0983976	.2377177	-0.41	0.679	-.5643158 .3675206
more_than_110000	-.1412138	.2585655	-0.55	0.585	-.6479928 .3655653
age26_35	-.1932684	.1796028	-1.08	0.282	-.5452835 .1587467
age36_45	-.1313486	.2217341	-0.59	0.554	-.5659395 .3032423
age46_55	-.087609	.2255392	-0.39	0.698	-.5296577 .3544397
age56_65	-.341656	.3924331	-0.87	0.384	-1.110811 .4274987
edu	.0173167	.0147221	1.18	0.239	-.0115381 .0461714
flv	-.0460584	.14423	-0.32	0.749	-.3287441 .2366272
fas	-.4282602	.2445382	-1.75	0.080	-.9075463 .0510259
fbf	.1549876	.1517575	1.02	0.307	-.1424517 .4524269
fkp	.0675385	.149281	0.45	0.651	-.2250469 .3601239
fbc	.0345146	.1438998	0.24	0.810	-.2475238 .316553
fpc	.1993418	.1385878	1.44	0.150	-.0722854 .470969

APPENDIX IV

Normality test for combined empirical results of Daman-e-Koh and Lakeview Park



Normality test for empirical results for Daman-e-Koh



Normality test for empirical results for Lakeview Park

