# Economic Pricing of Recreational Services and Determining Visitors' Willingness to Pay Costs for Visiting Urban Tourist Places (Case Study: Garden of Flowers in Isfahan)

**Parvin Shabanzadeh**
M.Sc. of Agricultural Engineering, Agricultural Economics, Faculty of Agriculture, University of Tabriz, Tabriz, Iran
**Mostafa Baniasadi***
Ph.D. student of Engineering of Agricultural Economics, Economics of Natural Resources and Environment, Faculty of Agriculture, Shahid Bahonar University of Kerman, Kerman, Iran
**Babollah Hayati**
Associate Professor, Department of Agricultural Economics, Faculty of Agriculture, University of Tabriz, Tabriz, Iran
**Hossein Raheli**
Associate Professor, Department of Agricultural Economics, Faculty of Agriculture, University of Tabriz, Tabriz, Iran

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**Abstract:** Cities have many tourism attractions and they always absorb many tourists to themselves; therefore, development of urban tourism and its wise management require planning. Considering the importance of tourism in urban economy and job creation, economic pricing of urban tourism services enjoys a special place in urban management. Garden of flowers is one of the most important tourism areas in the city of Isfahan. Thus, its recreational pricing can be effective in predicting needs and tourism development in Isfahan. The purpose of this research is estimating recreational value of Isfahan's garden of flowers and determining the rate of visitors' willingness to pay for it with contingent valuation method. Data were collected by interview questionnaire with 110 people. Logit model was used to measure people's WTP and the parameters were estimated based on maximum likelihood method. Dual two-dimensional method has been used to extract bids. According to the estimated coefficients, revenue and age variables had positive and negative effects respectively on WTP, and women's WTP is more than men. The average of people's WTP is 4752.49 Rials for recreational use of garden of flowers.

**Keywords:** Contingent valuation, urban tourism, WTP, urban economy
**JEL Classification:** R00, J33, L88, J71

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*Corresponding author: baniasadi.m65@gmail.com

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## 1- Introduction

Humans need to contact with nature; therefore, it is required to be survived. Today, tourism is an appropriate way to spend free time. It is considered aiming to reduce increasing stresses of urban and industrial life. Development of economic activities, population growth, increase in difficulties of life and rise in living standards, the phenomenon of air pollution in large cities, noise pollution and other environmental pollutants have resulted in increasing demand to use natural environments and need for tourism. This has led to increase people's demand for nature. Potentially recreational revenues and using the nature of forest areas for recreation and leisure are considered as direct values. Ecological services such as the ability of these areas to absorb carbon dioxide and weather normalization are indirect ones. Existential value is the intrinsic value of a resource that people consider them only for its presence and environmental activities even they do not see or use them (Amirnejad et.al, 2010). Environmental goods and services have the features of public goods; therefore, they are not available in market system, so their economic value is unknown. However, economists have speculated some measures to identify their value with monetary value (louviere et al., 2000).

Scientists of environmental economy believe that pricing is necessary for functions, goods, and non-market services of the environment and denial of their value will have undesirable consequences for the community in long run. To create healthy and developed society, it is required to implement environmental projects i.e. suitable development and maintenance of promenades and biological resources such as parks and jungles and create recreational centers to spend leisure time, so there should be necessary coordination between economic and welfare plans of the society (Fetras, 1998). Knowledge and understanding of environmental benefits by human beings, aid to decision-makers and planners through presenting environmental issues of the country to them, and relationship between economic policies and natural revenues can be considered as some goals of pricing for natural resources and environment by economists (Hammitt et al., 2001). If pricing of environmental services of natural resources are based on units that cannot be compared with other commodities, people will think they are free; therefore, inattention to price and value of these services leads to adopt unsustainable policies. Economic pricing of natural resources helps managers to maintain and utilize natural resources sustainably by proposing quantitative price of goods and services of natural resources (Majninian, 1967). In addition, economic pricing helps to present better services to visitors and boom tourism. Adventure tourism, ecotourism, urban, rural, religious, cultural, commercial, health tourism can be noted as some of the most important types of tourism. City is considered as one of the centers of tourist attraction (Yasouri et.al, 2012) and customs and traditions are one of several factors affecting tourism attraction (Qarokhlou, 2006). Accordingly, city centers can be considered as a suitable

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place to attract domestic and foreign tourists because of accumulation of civil institutions and social infrastructures. The importance of this type of tourism industry is doubled when it is accompanied with the history and civilization or its particular natural conditions of the area. It can be changed into a large tourism hub easily by appropriate planning (Tayyebi et.al, 2007).

On the other hand, determining the economic value of urban tourism areas in order to maintain environmental natural resources, tourism development, and its related services have considerable impact on urban economy. Economic history of the city has been accompanied with difficulties of commercial and industrial cities. Urban economies require various and broad economic bases to have sustainable and long-term growth. Service employment provides a broader base with advanced production services as a main part of rapid urban growth. More economies that are dynamic have veered from industry to services across the world. This change shows the success of urban economies (Hyun and Rennie Short, 2010). Thus, keeping and developing urban tourism areas have great importance in urban economy. Moreover, determining economic value and estimating people's willingness to pay for recreational use and protecting these areas can be a suitable in line with policy-making for keeping them.

The purpose of this research is studying the recreational value of Garden of Flowers in Isfahan and estimating the amount of WTP costs for preserving the natural environment. Exclusive feature of the garden is its multiple aspects of entertainment, culture, education and research. It is hoped to increase and improve tourism potentials of Isfahan more than before by its significant attractions.

## 2- Literature Review

### A. Foreign Researches

Gurluk (2006) determined the value of natural tourism services in Bursa, Turkey at 67.44 USD for each household.

Reynisdottir et.al. (2008) estimated people's WTP for National Park of Skaftafell 508 million kronor and 333 million kronor for Golfoi Waterfall. They considered income, attitude toward environment, the number of previous visits, residence, previous entrance fee, age, and education as effective factors on WTP.

Sattout et.al. (2008) calculated recreational value of cedar forests in Lebanon as 44.43 USD for each household annually.

Anderson (2010) estimated economic value of ice climbing by using the cost of travel in North America method as 76 to 135 USD for each trip.

Buckley et.al. (2011) used CV method to estimate visitors' WTP for improvement and development of infrastructure and post high pasture areas in Ireland. They indicated that visitors' WTP is 9.08 and 12.22 Pounds for plain and post high pasture areas on average respectively.

Mwebaze and Bennett (2012) estimated economic value of three Botanic Gardens in Australia by two

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travel cost and CV methods. The amount of WTP was studied for Botanic Gardens through the type of visitors' vehicles and their entrance costs. It was calculated between 3 to 5 monetary units of Australia in each trip. Consumer's surplus amount was estimated 34 monetary units of Australia for Botanic Gardens on average. Nearly 105 million monetary units of Australia of total social welfare have been created by visitors.

Majumdar et.al. (2011) estimated monetary value of the urban forests' benefits from perspective of visitors. They estimated visitors' WTP for urban forests by using CV method. The results showed that increase in income and postgraduate education raises WTP. It was estimated 11.2 USD.

Rosenberger et.al. (2012) studied WTP and stated value for the costs of recreational use in the forest near to the city (McDonald-Dunn Forest in Oregon State). These results indicated that those people who had stronger supportive attitude had higher WTP than others.

Lopez et.al. (2014) studied the impact of moral commitments and norms on WTP for preserving a city park. The WTP was estimated as 12.6 USD. The results showed that social norms affect considerably on determining attitudes, moral norms, and behavioral control. Moreover, they indicated that moral norms have improved explanatory power of main model. Finally, they concluded that social and responsible look and advocate attitude toward the environment is followed by more WTP for this type of environmentally urban goods and services.

Many studies have been done on protective and recreational value, pricing of environmental services, and urban and rural tourism have been done that some of them were noted. According to the previous studies, different variables affect the amount of value and people's WTP. Various methods have been used to determine value in previous studies. This research has addressed economic pricing of recreational services of Isfahan's Garden of Flowers, according to the theoretical principles and previous researches in the field of pricing of urban tourism services. Its pricing is necessary and important according to certain and valuable services of these places, exclusive features of the garden in multiple recreational, cultural, educational, and research aspects and it can help to the management of urban tourism industry in Isfahan.

**B. Iranian Researches**

Many domestic and foreign studies have been done about pricing of natural resources. Some of them have been mentioned in the following:

Manafi Molayousefi and Hayati (2010) estimated recreational value of Maharlou Lake by using CV method. The resulted indicates that variables such as education, village attraction, gender and revenue have significantly positive impact on willingness to pay costs for visiting (WTP) and variables proposed price, the number of annual visits, and household's size have negative impact. The averages of WTP and annual recreational value have been estimated 3392 Rials and 7811.2 million Rials respectively for the lake.

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Raheli et.al (2010) estimated recreational value of Band village in Orumiyeh by using CV method. The results indicated that education, gender, household's size, income, visitors' satisfaction, and suggested price have significant impact on WTP. The averages of WTP and annual recreational value of the village are 6250 Rials and about 500 million Rials respectively.

Qorbani and Sadeqi Lotfabadi (2010) studied the determinants of WTP and tourism value of National Park of Tondureh by using time series data of 144 households in Dargaz and Qoochan, CV method and Logit model. The results indicated that age and suggested entry fees have negative impacts, and income has negative impact on WTP for tourism in the park. Furthermore, the average of visitors' WTP for recreational value of the area and total price of tourism are 2639 Rials for each visit and 665.165 respectively.

Khaksar Astaneh and et.al (2011) measured and determined recreational value of forest park of Holy Mashhad and visitors' WTP of these parks by using CV method and dichotomous choice questionnaire. The average of visitors WTP of these parks has been estimated 1287 Rials for each visit and its total recreational value was more than 6.3 billion Rials as well. Household's size, education, revenue, the importance of preserving natural resources, and distance of home to the park have the most impacts on WTP respectively.

Hashemnejad et.al. (2011) studied and determined the index of WTP in Noor Forest Park by using CV method and dichotomous choice questionnaire. The results indicated that the amount of WTP was 3875 Rials for each visit.

Rafat and Mousavi (2012) measured recreational value of Hasht Behesht Isfahan forest Park and visitors' WTP by using CV method. The results indicated that individual's income, family's income, education, the quality of park, environment value, and the types of residential home have positive impact on visitors' WTP. Moreover, age, and distance from home to park have negative impact on it. The average of visitors' WTP for recreational value of the park is 2618 Rials and the average of annual payment for each household to visit it is 106814.4 Rials.

Malekiyan (2012) estimated recreational value of mountain park of Saffeh and visitors' WTP by using CV method and dichotomous choice questionnaire. Logit model was used to estimate WTP. The results showed that suggested price, education, income, age, and household's size have significant impact on visitors' WTP to use the facilities of the park. The average of people's WTP for recreational value of the park was 9985 Rials.

### 3- Theoretical Principles

Economic pricing is referred to quantitative values based on monetary units (Molayi, 2009). It is a very precise concept, it is related to humans, and change in their welfare reveals their preferences. People's welfare is measured by using their WTP. People's final WTP is measured by demand curve. Demand functions can be used to analyze the

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changes of people's welfare changes indicating the value of that change for people. Changes in people's welfare can be due to changes in price, amount of goods, and consumer's income. Since people's utility is invisible, using utility function is not appropriate for assessing changes in people's welfare; monetary units are used instead (Heberling, 2000), it is measured by WTP however. WTP is equal to the amount of monetary income that consumer is willing to spend for improvement of welfare situation or avoiding from their welfare decline. For example, if an individual's desirability is a function of consuming a good "q" (or service) and income of "y" (indicating the consumption of all of the other commodities), WTP will be equal to the maximum cost that an individual is willing to spend for increasing in the quality or quantity of that commodity because of increase in quality or quantity "q" from primary amount of $q_0$ to $q_1$ so that his desirability will be remained fixed before and after change, according to the amount of WTP (Brookshire et al., 1980):

$$U(q_0, y_0) = U(q_1, y_0 - WTP) = U_0 \quad (1)$$

In equation 1, $U(q_0, y_0)$ and $U(q_1, y_0 - WTP)$ indicates individual's desirability before and after change respectively.

Therefore, individual's mental value toward goods and services can be estimated by calculating the amount of WTP. However, different methods are used for pricing. Generally, there are two groups of methods for monetary assessment (Molayi, 2009); the first group includes methods that they do not end in estimating demand curve, but the price of intended goods are determined in these methods. They include replacement cost approach, adjustment (prevention costs), benefit transfer, production efficiency, and the cost of lost opportunity methods. The price of non-market is determined in these methods.

The second group includes methods ending in estimation of demand curve (Hicksian Demand and Marshallian Demand); therefore, the value of non-market goods are obtained by using the methods. The price of goods shows an amount that an individual has spent to buy it in the market, but the value of goods is equal to the price of goods in addition to the consumer' surplus. If an individual spends his maximum WTP as a price to buy it, the price of goods will be equal to its price (Molayi, 2009). Pricing methods based on estimation of demand curve are divided into two groups; methods based on Revealed Preferences Methods (indirect methods) and Stated Preferences Methods (direct methods) (Mitchell & Carson, 1989). Since the issue of the research is presenting new environmental and tourism services, and this type of service is not available in markets and supply and demand cannot be estimated so far due to the public nature of goods. Revealed Preferences Methods cannot estimate their values directly. On the other hand, Stated Preferences Methods estimate the values of non-market goods directly through questioning from people.

Revealed Preferences Methods include enjoyment pricing and travel cost methods. Enjoyment pricing method was introduced by Griliches (1971) and Rosen

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(1974) for the first time used for calculating implicit prices related to the features of related goods (Molayi, 2009). According to this method, the price of the product that is not presented in the market and does not have market price is determined. It is assumed that the commodity has some benefits that they exist in other trading commodities. The price of the product can be estimated relatively by the price of related market goods in this situation. The estimation determines shadow value of benefits from goods. Travel Cost Method was introduced first by Hotelling (1991) and it was broadened by Clowson (1959) (Molayi, 2009). The method is often used for pricing of environmental commodities and recreational places. Each person incurs cost for visiting recreational venues. Thus, the costs incurred by the person to visit one place indicating the minimum value that an individual considers for that place.

Stated Preferences Methods, usually called contingent valuation, considers a hypothetical market for those goods without market in order to be priced. The important point in this type of pricing is designing a questionnaire minimizing the skew. People's WTP is studied in contingent valuation for new goods or those not having market. The method has been used in many countries including developing ones in order to extract individual's preferences. People are asked directly about the amount of WTP for use or protection of a product. The amount shows a value determined by people. The word "contingent" in this method is for a commodity that there is no market for it; a hypothetical market is created. After creating it, respondents are asked about WTP by interview; therefore, WTP is estimated. The advantage of the method over Revealed Preferences Method (extracting demand for goods traded in market) is the use for pricing indirect consumption goods and non-consumer goods. Moreover, monetary value of change in people's desirability is directly determined by questioning about WTP or willing to accept people (Fattahi, 2010). As it was mentioned before, the method is called contingent valuation. It was used by Syriasy and Von Trapp for the first time in 1947 about avoiding soil erosion creating non-market benefits (Hanemann, 1992; Fattahi, 2010). Generally, it can be said that the method has been used for pricing environmental goods and natural resources. In this method, a hypothetical market is considered for a commodity or service that there is no market for it and the value of the goods is measured by the help of field data. People are asked directly about the amount of WTP for using non-market goods. The amount of maximum WTP indicates the value considered by people for the non-market goods. Contingent valuation (CV) method has been used in this research to estimate recreational value of Garden of Flowers in Isfahan and WTP.

## 4. Research Method

CV method has been used to estimate recreational value of Garden of Flowers. CV is usually used to measure non-market consumption and non-consumption values of environmental resources as one of the standard and flexible tools. In fact, it is

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necessary to refer to people in order to determine economic value of goods and environmental services; therefore, CV is often called preference method as well. Dichotomous choice and dual two-dimensional questionnaires have been used in this study to extract bid amount. A respondent confronts with two yes or no choices to a bid amount in one-dimensional dual approach while he/she faces with several bid amounts in dual two-dimensional and other amounts are presented to him/her based on his/her response. In fact, more suggestion depends on yes/no answer or respondent's reaction in the initial proposal. Bid amounts are presented to visitors at first as an entrance price in CV and the respondents accept or reject them for recreational value of Garden of Flowers based on maximizing their utility in the following conditions:

$$U(1,Y-A,S)+\varepsilon_1 \geq U(0,Y,S)+\varepsilon_0 \qquad (2)$$

In equation 2, U is indirect utility obtained by a visitor. Y is visitor's income. A is a bid amount or entrance price in hypothetical market and S is the other socio-economic features influenced by individual's taste. $\varepsilon_0$ and $\varepsilon_1$ are random variables with zero average distributed equally and independently (Kin et al., 2007). The difference of satisfaction is shown as follows:

$$\Delta U = U(1,Y-A,S)-U(0,Y,S)+(\varepsilon_1-\varepsilon_0) \qquad (3)$$

The possibility that a visitor accepts one of bid amount (A) based on Logit model is as follows:

$$P_i = F_\eta(\Delta u) = \frac{1}{1+\exp(-\Delta U)} = \frac{1}{1+\exp\{-(\alpha-\beta A+\gamma Y+\theta S)\}} \qquad (4)$$

In the above equation, $F_\eta(\Delta u)$ is cumulative distribution function with a standard logistic difference and it contains some socio-economic variables in the research. γ, β, and θ are estimated features.

The amount of WTP is calculated by numerical integration in the area of zero to the highest bid amount (A). Finally, the average of annual recreational value of each household for using Garden of Flowers can be calculated by the use of following equation:

$$V_R = n \times E(WTP) \qquad (5)$$

In equation 5, $V_R$ is annual recreational value of the park and n is the number of visited households. Logit model may be estimated as a form of linear or logarithmic function. Linear function form is easier and it is used in most studies. Logit model parameters were estimated by maximum likelihood method suing SHAZAM software. Mathematical calculations were done by Maple software.

Necessary statistics and data were collected by completing designed questionnaires via interview with visitors of Garden of Flowers in 2013. The studied samples were 100 visitors obtained by the equation of $n = \frac{z^2.p.q}{d^2}$. Simple random sampling was used. To measure visitors' WTP, dual two-dimensional questionnaire was used modified by Hanemann (1984) and Carson (1985) (Venkatachalam, 2003).

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This requires determination and selection of a more bid amount to the initial bid. More amounts are suggested for Yes, and less suggestion is used for No.

**5. Research Findings**

Required data were collected by questionnaire in this research. 101 peoples were determined as the volume of statistical sample by Cochran formula, and then 110 of visitors of the park in 2013 were interviewed. After careful review of questionnaires, 100 correct questionnaires were used to analyze and extract information. Simple random sampling was done due to the lack of accurate access to all statistical society. The most important question is about the amount of WTP. 30 pre-test questionnaires were completed in this research at first. A bid amount of 4000 Rials was offered as an initial suggestion based on the amount of obtained WTP from pre-test. The amount of 2000 Rials was offered as the lowest price in case of negative response to the first suggestion. As it is seen in table1, 22 people (22 percent) did not accept the first offer and they were not willing to pay 4000 Rials for recreational protection and use of Garden of Flowers. 78 people (78 percent) did not accept the amount. When the lowest amount bid (2000 Rials) was offered, 89 people (89 percent) did not accept it while 11 people (11 percent) accepted it. Those respondents who accepted were in the above group. They were asked whether they are willing to pay 6000 Rials for recreational use of Garden of flowers or not. 40 people (40 people) accepted the above suggestion and 60 people (60 percent) did not accept it.

**Table1. Descriptive statistics of responses to the offers**

| responses / offers | Yes | No |
|---|---|---|
| 2000 Rials | 11 | 89 |
| 4000 Rials | 78 | 22 |
| 6000 Rials | 40 | 60 |

**Source: (Researchers' findings)**

In order to estimate the recreational value of Garden of Flowers and the amount of visitors' WTP, the questions in the first part of the questionnaire related to the visitors' socio-economic parameters were analyzed at first. The results indicated that 63 percent of respondents were men and the rest of them were women. Table2 shows some of the important respondents' socio-economic parameters.

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**Table2. Respondents' important socio-economic variables**

| Variables | Average | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|
| Age | 40.58 | 11.67 | 24 | 70 |
| Years of education | 13.12 | 3.38 | 6 | 21 |
| Household's income (Rial) | 17670000 | 10648950 | 7000000 | 80000000 |
| Number of household members | 4.03 | 1.43 | 2 | 7 |
| Distance to the park | 115.48 | 98.5 | 3 | 500 |
| Number of visitors | 2.07 | 1.18 | 1 | 5 |

**Source: (Researchers' findings)**

According to tabel2, the average age of respondents is 40.58 percent and the average year of education is 13.12. The respondents' educational situation indicates that most of them have B.A. degree (29 percent) and the fewest of them have M.Sc. and Ph.D. (8 percent). The average income of the respondent is 17670000 Rials; the average number of household is 4.03; average distance to park 115.48 Km; and the average number of visit is 2.07 times. Table3 reports the importance of the environment from perspective of respondents.

**Table3. The importance of the environment from perspective of respondents**

| Degree | Very high | High | To some extent | Low | Indifferent |
|---|---|---|---|---|---|
| Number of people | 77 | 18 | 3 | 1 | 1 |

**Source: (Researchers' findings)**

As it is seen in Table3, the respondents have considered the environment particularly important so that 77 people (77 percent) chose its importance very high and 18 people (18 percent) selected the alternative of "high." It can be concluded from the above figures that visitors considered Garden of Flowers significantly important.

Table4 shows the amount of park's attraction from respondents' perspective. As it can be seen, the attraction of the park at "very high" level has chosen the most (82 percent).

**Table4. The attraction of the park from respondents' perspective**

| Degree | Very high | High | Average | Low | Very low |
|---|---|---|---|---|---|
| Number of people | 82 | 13 | 3 | 2 | 0 |

**Source: (Researchers' findings)**

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Table5 shows willingness for membership in environment organization by respondents. 81 percent of them are willing to be member in the organization. The figures indicate the importance of the environment for Isfahan's citizens.

**Table5. Membership in environment organization by respondents**

| Membership | Yes | No |
|---|---|---|
| Number of people | 81 | 19 |

**Source: (Researchers' findings)**

Table6 shows frequency distribution of respondents' job. As it can be seen, most respondents (36 percent) are self-employed and the fewest of them (4 percent) are retired.

**Table6. Frequency of distribution of respondents' job**

| Job | Expert | Self-employed | Employee | Housekeeper | Retired | Jobless | Total |
|---|---|---|---|---|---|---|---|
| **Number of people** | 6 | 36 | 33 | 16 | 4 | 5 | 100 |
| **percentage** | 6 | 36 | 33 | 16 | 4 | 5 | 100 |

**Source: (Researchers' findings)**

The results of the Logit model for recreational value have been presented in table7. Those variables that they are not statistically significant, but their estimated coefficients show intended sign was eliminated in order to access to better model in Logit model.

**Table7. The results of Logit model by using maximum likelihood method**

| Variable | Estimated coefficient | T statistic | Elasticity in average | Final effect |
|---|---|---|---|---|
| Constant coefficient * | 1.857 | 2.21 | 0.637 | - |
| Age** | -0.026 | -1.95 | -0.365 | -0.006 |
| Gender * | 0.814 | 2.51 | 0.176 | 0.187 |
| household income $^{ns}$ | 0.0000002 | 1.30 | 0.118 | 0.00000004 |
| Distance to the Park *** | 0.003 | 1.59 | 0.106 | 0.0006 |
| Bid amount * | -0.0003 | -2.32 | -0.449 | -0.00006 |
| The percentage of correct predictions 68.5 percent | | LRT[1]: 16.01P-value: 0.01, Log likelihood Function: -122.09 | | |

***: significance at the level of 1 percent **: significance at the level of 5 percent**
*****: significance at the level of 10 percent ns: nonsense**

**Source: (Researchers' findings)**

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the results of the model showed that bid amount and gender at the level of 1 percent, age at the level of 5 percent, and distance to the park at the level of 10 percent had significant impact on the amount people's WTP for recreational use of Garden of Flowers while the factor of household's income was not significant. The estimated coefficient about bid amount is negative indicating that the possibility of Yes response reduces in WTP by increasing the bid amount as an entrance. Estimated coefficient of the revenue was positive showing possibility increase of Yes response in WTP by income increase. The estimated coefficient is negative for age variable indicating the possibility to yes response in WTP and accepting bid amount in young people is more than older ones.

The calculated final effect for bid amount suggests that every 10 Rials increase in bid amount to the visitors reduces 0.00006 units the possibility of bid amount acceptance as recreational value of Garden of flowers.

It is possible that the number looks small, but it should be considered that possibility is between zero and one and 0.00006 units of acceptance possibility reduce by increasing every 10 Rials; therefore, the mentioned number is not so small. The calculated elasticity for the variable indicates that one percent increase in the bid amount reduces 0.449 percent its acceptance possibility. The calculated final effect in the model for income indicated that if other factors are fixed, acceptance possibility of WTP and bid amount may be increased 0.00000004 units for environmental benefit of Garden of flowers. Moreover, if respondents' income increases one percent, acceptance possibility of bid amount will be increased to 0.118 percent, according to the calculated elasticity for the variable. One percent increase in respondents' age reduces acceptance possibility of the bid amount equivalent to 0.365 percent for having tourism benefits of Garden of Flowers based on calculated elasticity for age. In addition, acceptance possibility of bid amount reduces to 0.006 units by adding one year to visitors' age based on final effect of the variable. Virtual variable of gender has been modeled with number one for men and zero for women. Thus, as the number of women increases among the visitors, acceptance possibility of the bid amount would be increased too.

**Calculating recreational value of Garden of flowers**

The amount of expected WTP was used to estimate recreational value. It means that it was calculated by numeral integration at the area of zero to the highest offer after estimating Logit model by following equation:

$$E(WTP)=\int_0^{6000}\left[\frac{1}{1+\exp\{-(2.315+(-0.0003)A)\}}\right]dA = 4752.49$$

4752.49 Rials have been calculated for the average people's WTP for recreational value of Garden of Flowers. The average annually recreational value of each household is 228119.52 Rials considering that the average members of each family are four people.

## 6- Conclusion and Suggestion

Creating and improving city tourism and maintaining natural environment and historical monuments of cities can help to human life considerably. Using tourism activities and its potentials for development of employment, from one hand, the revenue of governmental sector

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can be increased and development in private sector can be boosted and natural pristine environments and historical monuments can be preserved in the framework of sustainable development on the other hand. The results of the study and many other valuable researches indicated that people are willing to pay an amount of their revenue for utilizing the facilities of natural pristine and tourism environments in different places. This shows that nature and recreation are the necessities of today's human life at the age of technology and mechanization.

The purpose of the research is estimating recreational value of Garden of Flowers in Isfahan. To achieve it, required data were obtained via interview with 110 visitors after designing the questionnaire. The results indicated that people are willing to pay for maintenance and use of the recreational place so that 89 people (89 percent) of 100 respondents were willing to pay for it. It means that people consider great value for the environment and particularly recreational places.

Variable coefficient of offer, as the most important explanatory variable of WTP possibility for recreational value, was significant at the level of one percent with the sign of consistent with the theory. This shows that the possibility of accepting price at WTP reduces 0.45 percent by one percent increase in bid amount considering elasticity amounts under the hypothetical market scenario. People's WTP declines with the increase in their age, considering age. This indicates that youth have higher WTP for using Garden of Flowers. The sign of variable coefficient of gender shows that women respondents are more willing to pay. There are differences among various studies in this regard. For example, Brouwer (2006) and Jin et.al. (2006) stated that men's WTP is more than women's WTP in developed societies while it was specified in this research and some other studies such as Whittington et.al. done in developed countries including Iran and Haiti that women's WTP is higher. The results indicate that nearly 62 percent of respondents have allocated predicted WTP accurately by presenting a quite appropriate ratio with information. Moreover, the estimated average of WTP related to recreational value of Garden of Flowers in Isfahan is 4752.49 Rials for each person and annual average of each household's WTP is 228119.52 Rials. Most respondents (about 70 percent) cared particularly for urban environment and its protection. According to the results of the study and similar cases including Rosenberger et.al. (2012) and Lopez et.al. (2014), it can be found that people's attitude toward the environment and moral commitments toward maintaining the human capital affect their WTP considerably. Thus, one of the appropriate measures of urban responsible bodies including municipalities is attention to cultural and moral activities in the field of maintaining urban tourism environments.

According to the results, it is recommended to pay more attention to this class of the society according to the youth's more WTP to protect recreational places in line with maintaining Garden of

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Flowers. Recreational facilities desirable for the youth should be provided appropriately in Garden of Flowers. In addition, special discount can be considered in the entrance price other facilities of the garden for adolescent and young people. In this case, youth's visits and their motivation to protect the place would be increased as well as garden's revenue.

Since visiting environmental and historical venues are considered as luxury commodities economically, improving income levels, particularly less-income and poor classes of the society, is a strategy in this field that will be achieved by equal distribution of revenues. As mentioned before, payments for the environment and demand for more recreational use of natural resources are commodities with high elasticity and the only way to pay for its use is improving people's revenue. Therefore, improvement and income support among less-income classes of the society can be influential in the acceptance for bid amount. Moreover, planners and authorities should help more for development of tourism and increase in the number of visits by creating appropriate welfare facilities for households, informing and advertising via brochures, booklet, and CD, creating suitable context for private sector's investment in the activities, and improving sanitation in these areas in line with enhancing visitors' welfare. Definitely, it will result in more satisfaction among visitors and increase in the possibility of their revisits. Thus, it is suggested to maintenance of the recreational place to be transferred to the private sector. This will lead to create employment for private sector as well as increase in the efficiency in protecting this city tourism place. Moreover, the obtained amount of WTP in this study can be used as the entrance price for the park.

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