INTRODUCTION
As nowadays sustainable urban mobility is becoming more and more critical for a balanced combination of economic development and living standards, the new policy of Athens includes the promotion of cycling and the implementation of a bike-sharing program, as increasing cycling might lead to several advantages such as reducing congestion, improving air quality, providing complementary services to public transport, improving city’s image and branding as well as offering residents an active mobility option.

OBJECTIVE
The objective of the present research is the analysis of the parameters influencing the use of a bicycle sharing system in Athens, a city without a strong culture of cycling. Among other things, the influence of the existence of bicycle lines was studied, in order to assume whether safety plays an important role in user’s decision or not.

DATA COLLECTION

Stated preference method was chosen as a suitable method of analysis by a specially designed questionnaire, which was filled out in the form of an e-survey.

Questionnaire design
• The first part of the questionnaire comprises eight questions regarding the driving behaviour and habits of the participants.
• The second part includes three questions targeted to make the interviewee familiar with the concept of using bicycle and the reasons of choosing it for a daily transport mode or not.
• The third part of the questionnaire aims to investigate users’ switching behaviour through a specific stated preferences (SP) survey.
• The fourth part contains seven questions with regard to the demographic characteristics of the sample.

Implementation
• The on-line survey data were collected from a sample of 252 participants.
• The online survey was spread via pages of social network, personal e-mail, and personal contact at central areas of the Municipality of Athens.

Analysis methods
• Descriptive statistics
• Logistic regression models

DESCRIPTIVE ANALYSIS
Sample criteria
• Goal-oriented
• Law of Inertia of Large Numbers
• Accurate representative of the universe
• Proportional
• Random selection

Questions analysed
• Stated behaviour choices
• Gender
• Age
• Education
• Occupation
• Income
• Family
• Flexible working hours

REGRESSION MODELS
Logistic regression models were developed:

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>BSS</th>
<th>Car</th>
<th>Public Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>β1</td>
<td>Wald</td>
<td>e1</td>
<td>β1</td>
</tr>
</tbody>
</table>

DISCRETE VARIABLES

| Convenience | 0.96 | 9.44 | 0.54 | 6.25 | 0.54 | 6.25 |
| Age         | 0.91 | 5.61 | 0.60 | 3.33 |
| Gender      | 2.48 | 2.06 | 2.78 | 2.30 | 3.25 | 2.69 |

CONTINUOUS VARIABLES

| Time | -0.06 | -1.59 | -0.58 | -0.04 | -6.97 | -0.77 | -0.06 | -15.99 | -1.32 |
| Cost | -0.27 | -1.36 | -0.03 | -0.18 | -5.26 | -0.87 | -0.16 | -5.26 | -0.17 |

CONCLUSIONS
The probability of choosing a Bicycle Sharing System is highly affected by:

- **Time**: Increased travel time affects negatively the probability of choosing a BSS.
- **Cost**: Increased cost affects negatively the probability of choosing a BSS.
- **Travel comfort**: The absence of bicycle lanes affects negatively the probability of choosing a BSS.
- **Gender**: Men prefer a BSS.
- **Age**: Young people aged 18-24 years old prefer a BSS.