

A comparative research on perceptions of future sustainable transport interventions among different groups in Turkey



Can Bıyık, Professor Miles Tight, Dr Michael Burrow

School of Civil Engineering, University of Birmingham, UK

INTRODUCTION

There remains only limited knowledge of public perceptions and expectations regarding walking and cycling about daily work journeys in the Turkish urban areas (Atabeyoglu, 2014)

The current literature has been unable to demonstrate a comprehensive and consistent walking and cycling transport system that might be widely popular for individuals and different parts of society. (Cervero, 2013; Aldred et al., 2015)

The purpose of this presentation is to explore how different part of society might be encouraged to change their travel behaviours by understanding their perceptions and suggestions towards ensuring self-consistent visions in Turkey.

RESEARCH METHODS

A combination of quantitative and qualitative data was obtained from a large-scale online survey.

The quantitative part of the inquiry was designed to identify potential transport initiatives that may encourage a higher proportion of people from different groups to imagine walking and cycling as future urban transport modes.

The qualitative research was conducted as an additional tool to reveal discourses surrounding visions and ideas relating to the development of sustainable transport modes in Turkish cities. The participants were asked to write their opinions and recommendations for creating the visions around their local area as if they had unlimited authority to design future walking and cycling areas.

RESULTS

A one-way ANOVA was conducted to compare the perceptions of safety items on peoples' travel behaviour for future in urban areas. There was a significant perception of the average score of gender on changing transport patterns at the $p \leq .005$ for the six safety improvements. Statistically differences were not observed on the mean rating of security items among age ($F = .616$, $p = .651$), education ($F = .763$, $p = .451$), and income ($F = .733$, $p = .591$) subgroups.

Table 1. All significant safety items based on different groups

Items	Gender	Age	Education	Income
Reduced vehicle speed	F= 12.238, p= 0.001	F= 0.979, p= 0.111	F= 3.035, p= 0.013	F= 0.775, p= 0.569
Redesigned some of the road capacity to walk and cycle priority	F= 8.443, p= 0.004	F= 0.681, p= 0.575	F= 0.773, p= 0.013	F= 1.295, p= 0.264
Traffic light priority for cyclists	F= 13.385, p= 0.001	F= 0.596, p= 0.694	F= 1.133, p= 0.341	F= 0.747, p= 0.588
Good street lighting	F= 4.908, p= 0.027	F= 0.880, p= 0.268	F= 0.588, p= 0.709	F= 1.349, p= 0.241
Improved multi-lane roundabout design	F= 18.369, p= 0.001	F= 0.670, p= 0.590	F= 1.415, p= 0.217	F= 1.013, p= 0.409
Developed roundabout with safe cycling and walking facilities	F= 8.172, p= 0.004	F= 0.553, p= 0.758	F= 1.135, p= .546	F= 0.937, p= 0.456
More cycling paths separate from road traffic	F= 1.463, p= 0.227	F= 0.967, p= 0.141	F= 1.624, p= 0.185	F= 2.219, p= 0.050

This approach was used to analyse more than 500 separate transcripts generated from the last two open-ended questions of the online survey (1.5 million words of text and 422 different recommendations).

Figure 1 shows the most common suggestions (from 422 different ideas) towards creating desirable futures in Turkish urban areas. The most common view towards developing future sustainable transport systems is separate cycle tracks from all participant views. More than 70 participants have emphasised the importance of separate cycle tracks.

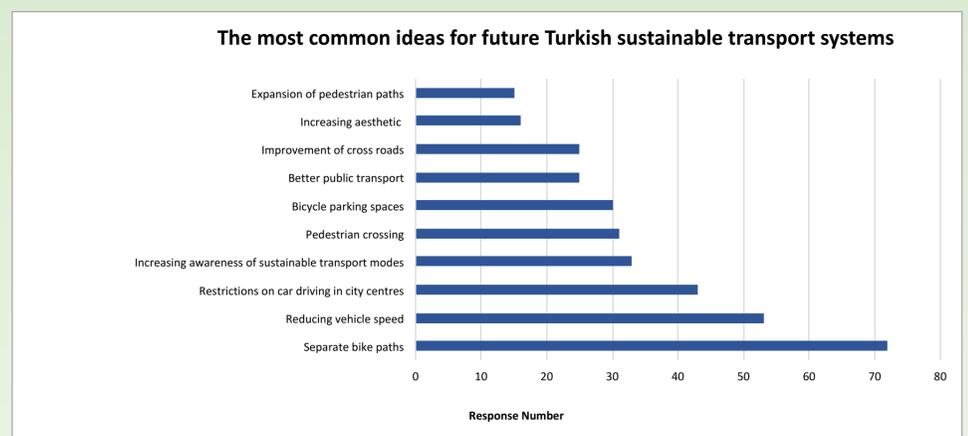


Figure 1. The most common ideas for Turkish transport visions

DISCUSSIONS

The results of the statistical tests reject the null hypothesis (no difference) for the assumption of homogeneity of variance and conclude that there is only a significant difference between the variances of female and male participants.

Although the statistical results only show the differences between the mean of sample variance, this study may extend our knowledge of some essential practices that assist different users to use sustainable transport modes more.

REFERENCES

- Aldred, R., Woodcock, J. & Goodman, A. 2015. Does more cycling mean more diversity in cycling? *Transport Reviews*, 1-17.
- Atabeyoglu, Ö. 2014. Büyükşehir Olma Sürecinde Bir Kent: Ordu. *Sosyal Bilimler Enstitüsü Dergisi*, 1, 160-177.
- Cervero, R. (2013). *Transport Infrastructure and the Environment: Sustainable Mobility and Urbanism*. IURD Working Paper 2013-03.

CONTACT DETAILS

Can Bıyık
Doctoral Researcher
School of Civil Engineering | University of Birmingham | Birmingham
B15 2TT - UK
E-mail: cxb110@adf.bham.ac.uk | Office: F59B
Mobile: 0044 7503128467 | Desk: 0044 7408407
Sponsored by Ministry of National Education- Turkey