

10th International Conference on Transport Survey Methods

## Workshop synthesis: Measuring attitudes; quantitative and qualitative methods

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### Abstract

In this paper, we present the discussion and main findings from the ISCTSC Workshop B3, which focused on measuring the role of attitudes and perceptions in people's travel choices. The paper considers various issues concerning the design and use of quantitative and qualitative approaches in the measurement of attitudes and perceptions within travel surveys. It first identifies the importance of measuring the underlying psychological motivations for people's travel choices and behaviors and provides some examples of how travel surveys have applied these concepts to date. It then considers the complimentary role of qualitative methods for improving quantitative survey and model design, as well as for providing deeper understandings and interpretations of travel behaviors. Finally, it makes some recommendations for the advancement of research practice in these two respects and also briefly discusses the opportunity for mix method approaches.

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### 1. Introduction

Over the last ten or so years, academics and policymakers have shown a growing interest in studying the role of psychological, social and cultural factors to determine people's travel behaviors and choices. Research into these 'softer' or more 'intangible' issues often demands survey methods that are either entirely new in their design and approach and/or introducing methods that are largely unfamiliar within mainstream travel survey methods. The aim

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of this workshop session was to help to promote discussion about the influence of people's attitudes and perceptions on their travel choices and to assess the potential for different quantitative and qualitative travel surveys designs and analytical methods to capture these effects.

In developing the various workshop activities, we referred to the previous sessions in ISCTSC conferences that have focused on the development and application of social survey methods for understanding travel behaviors (see Grosvenor, 2000; Pendyala and Bricka, 2006 and Clifton, 2011). These have already served to identify state-of-the-art social scientific methodologies and have made some useful recommendations for improvements to the design and analysis of quantitative and qualitative survey instruments. Within this paper, it is our intention to build upon, rather than repeat, these previous recommendations based upon our observations from this latest 2014 workshop.

A first observation was that the 2014 workshop participants came from two distinct groups in terms of their disciplinary expertises and interests in the development of travel survey methods. One group was mainly interested in finding ways to represent people's attitudes to travel in order to improve the predictive powers of their choice models, the other wanted to understand people's attitudes and perceptions of transport and their travel experiences using social scientific and primarily qualitative approaches. This is also a reflection of the disciplinary divides within current literatures around this topic and a challenge we aimed to address within the workshop.

## 2. Setting the scene

In the workshop, we agreed that our different disciplinary approaches were not necessarily competing and, in fact, they could potentially provide mutually reinforcing approaches for understanding the influence of people's attitudes on their travel choices. On this basis, we used the first session of the workshop to establish some basic definitions and concepts to help to clarify what exactly we mean when we refer to 'attitudes and perceptions'. This would assist us in understanding when it is most appropriate to utilize quantitative and/or qualitative approaches, when and how these methods are more useful, as well as to discuss how we might begin to develop mixed method survey designs.

First and foremost we identified that attitudinal studies tend to be primarily people- rather than systems-focused (Stinger, 1981; Baron and Byrne, 2002). Secondly, such surveys usually go beyond a basic explanation of people's behaviors and preferences in order to capture a wide range of psychological and social influencers of people's travel choices and behavioral outcomes (ibid). Most commonly, in the past attitudinal surveys have simply sought to measure people's attitudes to and perceptions of the transport system in quantifiably meaningful ways (e.g. Gärling *et al.*, 1998; Johannson *et al.*, 2006). Less commonly they have sought to understand the habits, social norms, personal networks and social interactions that reinforce these attitudes and perceptions, as well as how other less tangible factors might serve to influence the uptake of different transport options and/or the direction of travel trends (Triandis, 1977; Anable *et al.*, 2006).

Although all of these issues can be broadly described as 'qualitative' in nature, it does not mean that they necessarily demand the utilization of *qualitative* survey instruments (such as ethnographies, in-depth interviews, focus groups, etc.). Indeed, many surveys are design with the explicit intention of providing *quantitative* measurements of these factors so that they can be incorporated within travel behavior models. Neither, on the other hand, should qualitative survey methods be restricted solely to the research of social factors in transport. Rather they can be used to research a wide range of different travel behaviors and aspects of choice. For example, qualitative survey methods are particularly useful for exploring hitherto uncharted territory, or to help improve the design of quantitative survey instruments or to explore the causal factors behind people's behaviors and the dynamic aspects of people's decision processes.

We also identified that people's attitudes and perceptions are strongly related to a variety of social and contextual factors. Social factors might include people's personal circumstances, work and home-based responsibilities, values, habits, social norms, lifestyle choices, as well as intentions, expectations and feeling of control. These type of influences on people's travel choices have already been comprehensively explored by social psychologists and have been widely explored and debated within transport literatures (Triandis, 1977; Ajzen, 1991; Steg *et al.*, 2001). The contextual factors influencing people attitudes towards different travel choices has also been a popular topic of research, including consideration of urban form and land use factors, the quality and efficiency of the transport system and the availability of alternative choices (Ortúzar and Wilumnsen, 2011). The literatures have also paid considerable attention to how people attitudes can be influenced through awareness-raising, social marketing and

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