

Developing an Effective Targeted Mobile Application to Enhance Transportation Safety and Use of Active Transportation Modes in Fresno County: The Role of Application Design & Content

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This research empirically studied the importance of the inclusion of certain mobile app features, an appealing design and aesthetics, and the behavioral intentions related to the interactions with the mobile app among pedestrians and cyclists in Fresno County. This research was conducted in an effort to increase active transportation mode utilization and increase safety of vulnerable road users. The public, city administrators, transportation authorities, and policy makers shall benefit from the results of this study.

Study Methods

This research employed a survey design to quantitatively assess the appeal of various mobile app designs and proposed content among the Fresno County pedestrians and cyclists. This research examined coherence, perceptions about various app names and colors, the importance of app features, perceived enjoyment, intentions to adopt the app, the willingness to recommend the app, and the willingness to pay for the

app, and the visual appeal of the app and imagery of the app.

Findings

Findings indicate the general need and acceptance among Fresno County pedestrians and cyclists to have a mobile application that is specifically designed for active transportation modes (walking and biking). Safety Information, Weather Conditions, Guide to Trails, Events for Walkers and Bikers, and Promotional Offers were deemed as important features for the target audience, who indicated a significant likelihood to use each of these features.

Green, Blue, and Orange are potential dominant colors for the application as these colors were favorably perceived by the target audience. The proposed design of the drop-down menu and the overall app design were perceived favorably on factors such as design appeal, attractiveness, relevance of information, ease of

navigation, content importance, usefulness of functions, concision, personalization and customization, imagery aesthetics, coherence and organization, and memorability.

Policy/Practice Recommendations

This research and its findings suggest that there is a need to develop an application for active road users in Fresno County. The findings indicate which features are important to include in the application, as well as providing insights for appealing application design and content characteristics.

Mobile Applications that are designed for active road users (cyclists and pedestrians) can promote the use of active transportation modes and enhance the safety of vulnerable road users. Features that are functions (e.g., weather conditions, guide for trails, and safety tips) and are social (community events and promotional offers) are perceived as being appealing and useful. The design and content of the application need to be favorably perceived by the target audience.

About the Authors

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Dr. Samer Sarofim is an award-winning marketing scholar and educator. He is a Faculty Fellow at Fresno State Transportation Institute and an Assistant Professor of Marketing at Craig School of Business, California State University – Fresno. His research was honored by the Best Paper Award in the Consumer Behavior Track at the American Marketing Association Summer Academic Conference. Dr. Sarofim is also the recipient of the Pearson Education Michael Solomon Consumer Behavior Best Paper Award and the Society for Marketing Advances Conference (Retailing Track) Best Paper Award. Dr. Sarofim's research has appeared in multiple prestigious academic journals, including *Marketing Letters* and the *Journal of Business Research*.

To Learn More

For more details about the study, download the full report at transweb.sjsu.edu/research/2013



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