

Developing a Feasible Business Model for Expanding the EV Market to Lower-Income Californians

Samer Sarofim, PhD
Aly Tawfik, PhD, PTP

Project 2026
July 2022



Introduction

Using a data-driven and evidence-based approach, this project developed a feasible business model for expanding the EV market to lower income Californians by addressing existing barriers that hinder their adoption of EVs.

Study Methods

This research employed a combination of qualitative and quantitative designs. The team designed a California state-wide survey to quantitatively assess the different objectives, preferences, priorities, challenges, and limitations of low-income Californians in the different regions of the state. The survey assessed various barriers for the adoption of EVs by low-income Californian, including Knowledge Barrier, Misinformation Barrier, Convenience Barrier, and Cost Barriers. This qualitative study investigated the current challenges faced by various stakeholders when it comes to expanding EVs to

low-income Californians. It was designed to gain a greater breadth of understanding of on how various stakeholders (companies/institutions/state agencies) can contribute towards increased EV access to low-income Californians.

Findings

Findings presented the barriers perceived by low-income Californians and statistically tested for significant ones. It also presented the perspectives of various stakeholders that play an important role in the EV market. Generally, there is willingness among stakeholders to engage with potential ideas and creative solutions to change the dynamics within the EV market, overcome its obstacles, and serve low-income Californians. As for low-income Californians, the lack of adoption of EVs stems from existing valid barriers, mainly those related to cost, convenience, charging infrastructure, and financing options. The

survey showed that if these barriers were addressed, their willingness to purchase or lease an EV will be positively impacted.

An evidence-based business model could overcome barriers preventing low-income Californians from accessing the EV market.

Policy/Practice Recommendations

The team used insights from both the qualitative and quantitative studies to develop a business model that can be utilized to expand the EV market among low-income Californians. The business model can be used by state administrators, policy makers, and social enterprises to mitigate the barriers faced by low-income Californians within the EV market.

About the Author

Samer Sarofim, Ph.D.

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. Dr. Sarofim's research has appeared in multiple prestigious academic journals, including Marketing Letters and the Journal of Business Research.

Aly M. Tawfik, Ph.D., PTP

Dr. Tawfik is an associate professor of transportation systems engineering and founding director of the Transportation Institute at California State University, Fresno. His area of expertise includes modeling as well as simulation and optimization of individual travel behavior and transportation systems, and he has a particular passion for transportation sustainability and the future of transportation.

To Learn More

For more details about the study, download the full report at transweb.sjsu.edu/research/2026



MTI is a University Transportation Center sponsored by the U.S. Department of Transportation's Office of the Assistant Secretary for Research and Technology and by Caltrans. The Institute is located within San José State University's Lucas Graduate School of Business.