

Professional Drivers' Motivations for Eco-driving Behavior

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Abstract

The deterioration of the natural environment is one of the most demanding challenges in the twenty-first century and governmental authorities and scientific community seems to agree that emissions caused by transport are one of the major causes for the current climate change and pollution problems around the globe. To attenuate these detrimental effects, eco-driving has been proposed as a measure to reduce fuel consumption and pollution and to increase road safety and the welfare of drivers. Eco-driving is known as a series of driving practices that are being promoted because of its positive cost-benefit balance, although its short-term effects have also been proven.

This study aims to add to the knowledge gap regarding our understanding of eco-driving by analyzing the motivations drivers have for a more eco-driving behavior. A survey was applied to professional drivers from a bus company operating in the Northern Mexico, with a fleet of more than 700 buses, 260 routes, and 2,000 daily departures. Questionnaire includes five sections: knowledge on eco-driving, intention of adoption and motivations for driving eco-friendly; and social norms, barriers and incentives in the adoption of eco-driving company initiatives. This work shows the results obtained and how they can help guide the company to develop the corporate reinforcement –both positive and negative– strategies for its drivers.

Keywords

Eco-driving, bus drivers, motivations, reinforcement, Mexico, sustainable behavior

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Biographies

Jenny Díaz Ramírez is currently a professor of the Department of Engineering at the University of Monterrey. She has worked previously as professor at Tecnológico de Monterrey, Mexico and Pontificia Universidad Javeriana Cali, Colombia. She is industrial engineering from Universidad del Valle, Colombia. She holds an MSc in industrial engineering from Universidad de los Andes, Bogota, Colombia, an MSc in operations research from Georgia Tech, US and the PhD in Industrial Engineering from Tecnológico de Monterrey. She is a member of the National System

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Lorena de la Paz Carrete is professor of Marketing at Tecnológico de Monterrey, EGADE Business School. She holds a Ph.D. degree in Business to Business Marketing from the University of Lyon 3, France. She is member of the research group “Consumer Behavior and Conscious Marketing”. Her research includes: green marketing, social marketing for health care, corporate social responsibility, health brands, service quality, brand image, consumer satisfaction and loyalty. She is member of the Association for Consumer Research (ACR), and Mexico National Research System and has published articles in international journals such as Journal of Business and Industrial Marketing, Journal of Consumer Marketing, Journal of Marketing Theory and Practice, Qualitative Market Research an International Journal, Management Research Review, and Mexican journals such as Salud Publica de Mexico and Contaduría y Administración. The lines of research in the field of green marketing focus on motivations and drivers of consumers to embrace ecological behaviors, the design of green strategies to promote environmental actions based on consumer behavior theories and, communication and consumer-brand interactions to support green practices.

José Ignacio Huertas is mechanical engineering from Los Andes University, Bogota, Colombia. He holds a M.Sc, and a Sc.D. in Mechanical Engineering at Washington University, MO, USA. Currently, he is a researcher professor of the Mechanical Engineering Department at Tecnológico de Monterrey, Campus Monterrey. He is member of the Energy and Climate Change Focus Group at Tecnológico de Monterrey, member of the National System of Researchers of CONACYT, SNI Level I, and member of the Mexican Institute of Sciences. He has published 3 books, 4 book chapters and more than 47 articles in indexed magazines related to energy and air pollution. He has completed more than 90 research and technological development projects financed by companies and government entities in Colombia, Mexico, Spain, France, and US. He has graduated 65 teachers and 6 doctors. His research topics are fuel consumption reduction, air quality modeling, motors and combustion, driving cycles, and smart cities.