Chapter 7

The Formation of Usage Intention of Electric Cars: A Comparative Study of Denmark, Belgium, and Italy

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ABSTRACT

In this chapter we propose a model in which green self-identity (GSI) is an antecedent of both environmental concern (EC) and moral obligation (MO), which in turn influence the attitude towards electric cars (ATT). GSI is also assumed to have a direct effect on ATT. The attitude towards the electric car then determines the intention to adopt it. The model is empirically tested in three culturally different European countries: Denmark, Belgium and Italy. Results show that the three countries differ in the way they develop positive attitudes and intentions towards the electric car on the basis of their green self-identity. In Denmark, GSI strongly and directly leads to positive attitudes. In Belgium, ATT is mainly formed through the development of a strong EC. In Italy, MO plays a dominant role in the development of positive attitudes. We suggest explanations using Hofstede’s values framework.
INTRODUCTION

It is the desire of the world economies to grow GDP. This will most likely cause an equivalent growth in transport demand: societies need to increase transport provision in order to grow the economy, which implies the increasing use of fossil fuels. This, in turn, causes environmental problems at a global, national and local level. Burning fossil fuels leads to particulate matter that can adversely affect human health and also have impacts on climate and precipitation. Smog and acid rain are more local consequences, but the burning of fossil fuel also contributes to the emission of carbon dioxide, leading to global warming (Völlinck, Meertens, & Midden, 2002). Smith (2008) claims that the need to change to a sustainable transport system is a matter of urgency: “Rising transport demand is likely to be the biggest hurdle to reducing our greenhouse gas emission” (p. 1). One of the options to counter the trend of deploying the natural resources and polluting the air as a result of this transport system, is the partial or complete shift to electric vehicles. Electric cars may reduce the trade-off between economic growth and environmental deterioration. Electric cars enhance mobility without inflicting negative externalities such as air pollution to the same extent as traditional combustion engine cars.

However, traditional combustion engine cars will not be easily given up just because they are dangerous to health and life, environmentally destructive, based on unsustainable energy consumption, or damaging to public life and civic space. As earlier research points out, too many people find them too comfortable, enjoyable, exciting, and even enthralling. They are deeply embedded in ways of life, networks of friendship and sociality, and moral commitments to family and care for others (Sheller & Urry, 2000). Research in the U.K. shows that consumers experience a lot of uncertainty and hesitation about the electric car (Graham-Rowe, Skippon, Gardner, & Abraham, 2011). Despite the fact that manufacturers use new electric car designs and technology to minimize the impact of the car on the environment, these efforts may be pointless if consumers are not willing to adopt them (Moisander, Markkula, & Eräranta, 2010). Therefore, insights into consumers wants, needs and desires, and the motivational processes of people are of crucial importance in order to effectively promote the adoption of electric cars in the market.

Reducing negative environmental impact, such as recycling or reducing energy and water consumption, has received more attention than eco-friendly purchasing behavior (Jansson, Marell, & Nordund, 2010). In addition, research on green purchasing behavior has mainly focused on low involvement products that are purchased on a regular basis, i.e., food (e.g., Pino, Peluso, & Guido 2012) or other grocery non-food products (e.g., Follows & Jobber, 2000). There is a lack of literature investigating high involvement purchases of green products, and more research is needed in product categories that are more expensive, reflect more on the consumer’s identity, have a higher social risk, and require more research prior to purchase, such as cars (Oliver & Lee, 2010).

Buying an electric car can be considered ethically-motivated consumer behavior. All well-known models of ethical behavior assume a relationship between the cultural environment and ethical perceptions (Hunt & Vitell, 1986; Ferrell, Gresham, & Fædrich, 1989; Kilbourne, Beckmann, & Thelen, 2002). A person’s value system and his or her interpretation of ethics are greatly influenced by cultural background (Pallab, Abhijit, & Mukhopadhyay, 2006). Indeed, there are significant differences in ethics between consumers who score differently on Hofstede’s cultural dimensions. For instance, consumers scoring high on collectivism and uncertainty avoidance, and low on masculinity and power distance, are more likely to reject questionable activities (unethical behavior) (Swaidan, 2012). Ethical behavior varies cross-culturally, but scant attention has been given to understanding how culture affects the ethical reasoning process that predicates individuals’ ethical actions (Thorne & Saunders, 2002). It is therefore