Stringent Emission Norms Driving Electric Car Market

Puneet Shah[1]

India

Abstract

This paper explores the contribution of car dealerships in Electric Vehicle (EV) market up-take. Car dealerships play a significant role in EV market penetration where the most critical moments of the EV's life happens, the actual sale process. The recent yet limited literature from the US shows certain issues during the sale process of EVs. The literature also indicates that the car dealers are not always qualified enough, lack knowledge to sell EVs, or in other cases they might even discourage potential customers from purchasing an EV. Furthermore, the paper presents statistical EV sales data from the Greek market and explores the literature findings through interviews that have been carried out on the only two existing EV distributors in India. The aim is to identify the validity of the literature review findings as well as to present the current state of the EV market in the country. Finally, policies and suggestions are made that can improve EV market penetration in India.

 The electric car sales are projected to reach 5.3 million units by 2023, and the electric car market is expected to advance at a 33.6% CAGR during the forecast period (2017–2023). The market is witnessing growth due to the strict emission norms, new variants of electric cars, and reducing battery costs. In terms of technology, the market is divided into plug-in hybrid electric vehicle (PHEV) and battery electric vehicles (BEV), between which, the BEV division is expected to dominate the market during the forecast period.

Methods: This randomized, placebo-controlled study recruited 80 healthy postmenopausal women. Women were randomized to treatment with estradiol 1 mg continuously combined with drospirenone 2 mg or placebo for 6–8 weeks. All participants underwent an oral glucose tolerance test (OGTT) before and after the treatment period.Glucose, insulin, fructosamine and C-peptide levels were measured in serum before and 30, 60, 90, 120 and 150 min after a 75-gram oral glucose challenge.

When segment is taken into consideration, the electric car market is categorized into premium, economy, medium, and low. Out of these, the low category held the largest share of the market during the historical period (2013–2016); however, the economy category is expected to dominate the market during the forecast period. The reason for this is the lower prices of these electric vehicles as compared to the medium and premium segment electric vehicles. The medium division is projected to grow at the fastest pace during the forecast period.

Geographically, the Asia-Pacific region registered the fastest growth during the historical period, as the governments of Asian countries provide subsidies on the purchase of electric cars. China is predicted to account for the largest share of the electric car market in the Asia-Pacific region during the forecast period. The BEV category is expected to hold the largest share in the Chinese electric car domain. In addition to this, the government in the country spent about $4.9 billion in subsidizing electric vehicles by 2015.

Long-range cars are predicted to gain share in the electric car market in the coming years, which is providing opportunities to the players operating in the domain. The anxiety regarding the range of electric vehicles is a key factor which is hampering the adoption of electric cars around the world. Most electric cars have lower range than conventional fuel cars. However, due to technological advancements, the battery technology is advancing. This is resulting in increasing focus on extending the range of electric cars so that they can compete with conventional fuel cars.

Hence, the market is growing due to strict emission norms and declining battery prices.

Puneet Shah
India E-mail: punitshah365@gmail.com