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Pitfall on Embracing Electric Cars Technologies in Indonesia, a Literature Review

Overview

Recently, in developed countries there have been developed x-EV technology to answer the problem of national fuel efficiency and the environmental issues of CO₂ emission (Lunn, Choidealbha, & Timmons, 2020), although sales growth is not too high but the trend is rising continuously. Unlike in Indonesia, the embracing of electric car technology runs very slowly. There are several interesting factors to be studied for manufacturers and governments in applying related regulations. Previous researcher (Coffman, Bernstein, & Wee, 2017), (Riyanto, Nuryakin, Riyadi, & Massie, 2020), found factors that play a role in the consumer's car purchase decision: Monetary Factor (that are captured by the TCO concept) and Non-monetary Factor (e.g., driving range capability, brand, charging time and infrastructure). But the research did not explore other factors including consumer behavior especially in Indonesia that have particular preferences. Our methodology based on literature review from journal, automotive websites, GAIKINDO Seminar Data and OEM's research data. In this study we propose several research questions including: (RQ1) Is the expensive price factor causes consumers to be reluctant to choose an electric car?, (RQ2) Whether the ease of industrial technology 4.0 helps the public in the penetration of electric cars?, (RQ3) Does the travel distance capability factor in one time charging affect the consumer in choosing an electric car? If not properly studied, these RQ perceived to become a pitfall in embracing electric cars technology in Indonesia.

Keywords: Electric Cars, x-EV, TCO Concept, Consumer Behavior, Technology 4.0

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