Characterizing California Electric Vehicle Consumer Segments

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Overview

In order to guide the promotion of the electric vehicle (EV) market into the mainstream, we set out to identify and profile consumer market segments that have been effective targets for supportive resources, such as information and incentives.

“Rebate Essentials” – EV adopters highly influenced by rebates

“Converts” – EV adopters who had a low initial interest in EVs

Characteristics examined: transaction, household, demographics, motivations and experience with EVs.

Consists of all-battery and plug-in hybrid EVs; mean age is 57 years, 53% female.

How can consumer research help us grow markets for electric vehicles?

“Adding fuel to the fire”

“Tough market nuts to crack”

“Expand market frontiers”

“Pre-adapted” consumers

Who is “pre-adapted” to adopt?

Data

Model

1. Binary logistic

2. Ordered logistic

Target Consumers: “Rebate Essentials”

“Converts”

Demographic variables:

1. Male

2. Low-to-moderate income

3. Multi-unit dwelling

4. Lower initial interest in EVs (‘converts’)

5. Adopted most influenced by incentives – “rebate essentials”

6. Adopted by low initial interest EVs – “converts”

7. Adopted most influenced by rebates

8. Adopted least influenced by incentives – “converts”

9. Adopted least influenced by rebates

10. Adopted by low initial interest EVs

Incentives – “rebate essentials”

“Converts”

Identify characteristics associated with:

1. Majority Characteristics

2. Vehicle characteristics

3. Information gathering

4. Housing and region

5. Reasoning

6. Information gathering

7. Target Consumers:

- “Highly Influenced “Rebate Essentials”

- “Low Interest “Converts”

Common Across All Segments

The odds of being in all four of the segments

Differences – BEV Consumers

The odds are higher for BEV consumers that are non-white, more motivated by energy independence and buying rather than leasing

Differences from Rebate Essentials

In contrast to Rebate Essentials, the odds of being in a Convert are increased for consumers that are more motivated by reduced environmental impacts, more rebate incentives, and who found out about the rebate at the dealership (PHEV consumers). And, who found out about the rebate at the dealership (PHEV consumers).

Visit the following interactive dashboards for more data and information: cleanvehiclerebate.org, mor-ev.org, ct.gov/deep and zevfacts.com

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