Need to identify EV buyers? Try a personality test

How psychographic segmentation can help you focus your electric vehicle efforts
By Bill LeBlanc
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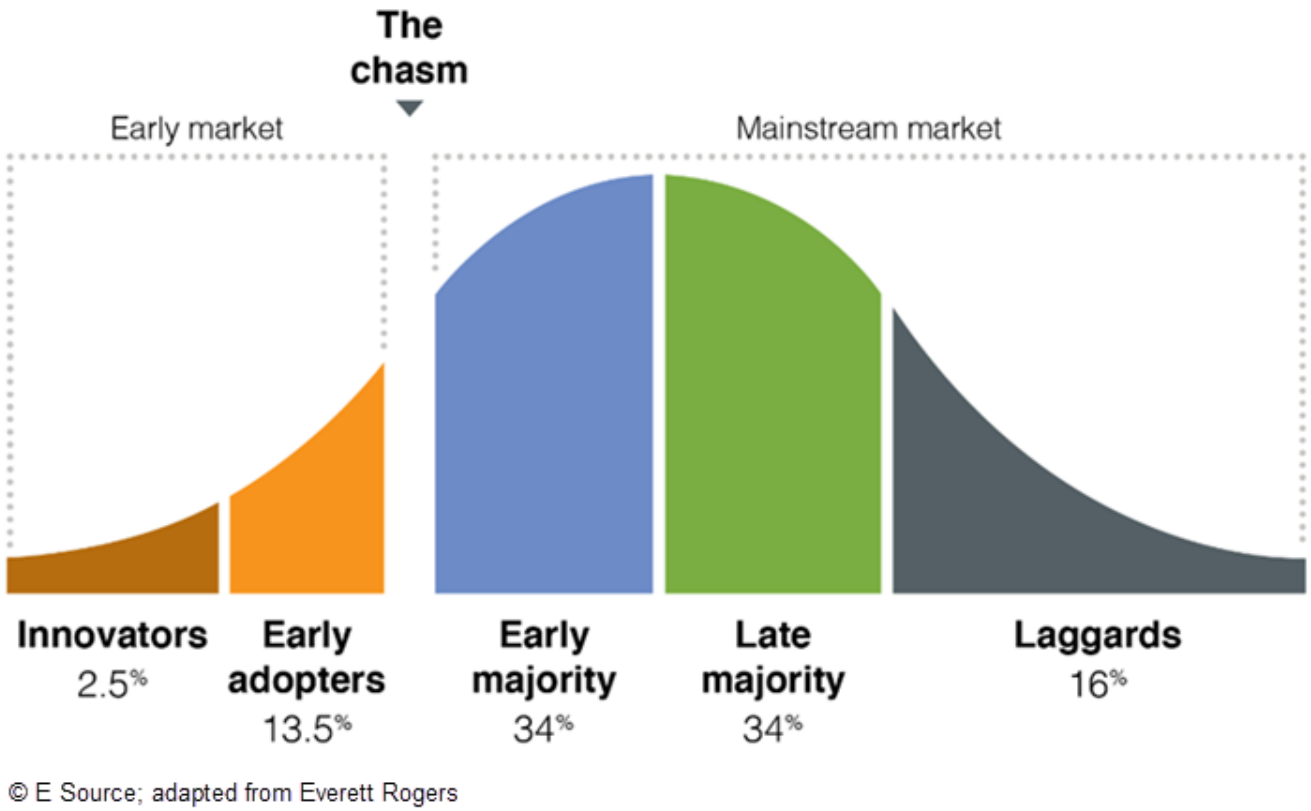
Why would someone buy an electric vehicle (EV) instead of an internal combustion engine (ICE) vehicle that they've been accustomed to their entire life? Usually when people choose a new technology, it's because the new tech's form or function is superior to that of the incumbent technology. We buy a new TV because it has a clearer picture, a larger screen, or enhanced connectivity. We buy an Amazon Echo because it provides easier access to information, music, and smart home controls compared to our phones or computers. But when you're comparing an EV buyer to an ICE vehicle buyer, you need to look closely at the differences—or lack thereof—between the two car options.

Both types of vehicles transport us from point A to point B at approximately the same level of speed, comfort, and convenience—arguably the most important reason we buy any car. So what are the attributes of EV buyers, and how will those attributes evolve? This is where psychographic segmentation comes in handy because it gives us the why behind buyers' decisions.

We gather psychographic segmentation data from EV drivers through ethnographic research—an approach we used for the E Source E Design 2020 design-thinking and innovation initiative. As part of that project, we identified four EV buyer segments. Note that using psychographic data is one of many ways we segment EV buyers. All of these buyers are in the innovator or early-adopter portions of Everett Rogers's diffusion of innovation curve (**figure 1**) and have special characteristics. We covered this in our online event EVs won't sell themselves: What utilities and car dealerships can do to accelerate market adoption.

Figure 1: Rogers's diffusion of innovation curve and the chasm that EVs need to cross

EVs haven't crossed over the chasm to the early majority, so most EV buyers are in the innovator category of the curve. The chasm is the barrier all new technologies must overcome in the early-adopter phase because early adopters have different priorities and expectations of new products than innovators do.



The four psychographic segments of EV buyers

Prestige buyers. These are the buyers who want the social currency of owning an EV. They're attracted to EV models that are flashy, high end, and unique. A recent Car and Driver headline caught my eye: New Study Says Expensive Cars Are Bought by Jerks Who Won't Yield. The author doesn't discuss EVs in the article, and there's no direct evidence that prestige EV buyers are jerks, but it's a fun read nonetheless.

Consumers are drawn to a luxury purchase because they seek the status and attention that comes with that product. There's often an element of exclusivity, or a first-mover factor, that comes into play. Perhaps there's even a "keeping up with the Joneses" component. If the Tesla brand is now floating in your head, that's because it's the quintessential EV for the prestige buyer. Tesla founder Elon Musk used a classic ladder-pricing approach by introducing the most luxurious and expensive models first. This created buzz around the brand and, whether intentional or not, it also created scarcity. Later, Musk introduced the more modestly priced Tesla Model 3. Just think about how customers would view the brand differently if the Model 3 was Tesla's most luxurious model, and its previously released EVs were bare-bones, affordable cars with limited range and performance.

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Based on EV sales so far, prestige buyers account for an inordinately large percentage of buyers. According to the Light Duty Electric Drive Vehicles Monthly Sales Updates from the Transportation Research Center at Argonne National Laboratory, 67% of 2019 plug-in sales were luxury vehicles from Tesla (with more than 50% of the sales), Porsche, BMW, Mercedes, and Audi. Themes of uniqueness, the latest technology, and the driving experience are all central to marketing to prestige buyers. But

because luxury cars make up only about 5% of all new car sales, it's important to focus on other buyer types to transform the market.

Environmental buyers. As the name implies, these EV buyers purchased their cars primarily to shrink their environmental footprint. Our data shows that many of these owners also have solar panels or buy green power and make other environmentally based decisions. EVs are most environmentally friendly in areas with lots of renewable energy. But according to the Forbes article Charging An Electric Vehicle Is Far Cleaner Than Driving On Gasoline, Everywhere In America, even in the most coal-based electric systems, EVs create less carbon dioxide than an equivalent ICE vehicle.

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Environmentalism also includes an element of pride and prestige for being green (environmentalists do show off, yes), but generally it's more intrinsic and focused on the current and future health of the community and planet. Environmental buyers show a willingness to pay more for an environmentally superior option, whether for food, investment portfolios, cleaning products, or electricity. Messaging for environmental buyers should focus on creating a connection between driving an EV and specific environmental outcomes for their family and society. And the tone should be aspirational and positive.

Irrational economic buyers. This segment may be a bit confusing, but it's an important segment to understand in order to grow the early-adopter market. We call them irrational economic buyers because they focus on the dollar savings of EVs, but then gloss over the poor resale value of EVs compared to ICE vehicles. The Green Car Reports article Beyond Tesla, electric cars lose value faster than other vehicles goes into detail about the value of used EVs.

Certainly the core arguments for this segment are the direct savings from using electricity instead of gasoline, which can save up to 75% of normal fueling costs, as well as lower maintenance costs. Additional factors we heard in our research include never needing to go to gas stations, enjoying an exhilarating driving experience, and not needing oil changes. Overall, irrational economic buyers convince themselves of the value basis for purchasing an EV and being an early adopter, but they're also likely to be influenced by some environmental or prestige elements.

Rational economic buyers. The final psychographic segment is the rational economic buyer. This person compares the overall costs of an EV to an equivalent ICE car. The word "equivalent" is important because many of today's EV buyers are foregoing their top model choice (crossover, SUV, truck, van) in order to be an early EV adopter, where there's little choice of model types (mostly sedans and hatchbacks). This type of buyer might manage a fleet of vehicles, where the economic decision is paramount. A fleet vehicle owner needs to consider operating costs, maintenance costs, vehicle longevity, charging infrastructure costs, and possibly environmental costs.

Because EVs cost more than their ICE equivalents by a decent margin, this group represents a very small percentage of current sales. But as the market moves from early adopters to early majority, EVs will need to compete economically.

How will things play out over the next five years and beyond?

So how will psychographic segmentation of the next set of EV buyers evolve? As more EV models enter the market, it will be interesting to see how buyer types shift. We think we'll continue to see

environmental buyers, especially as battery range increases and new SUVs start to hit the market. We also predict that rational economic buyers will become an influential group as we move into the early- and late-majority phases of the diffusion of innovation curve. The next five years will be important because the overall EV market must grow fast enough to make EVs a profitable product for car companies. In our EVs won't sell themselves web conference, we explained how EVs will move through the curve as well as how the top Nissan EV salesperson in the US gets people to take the plunge.

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Psychographic segmentation is useful for understanding buyers' rationale and enhancing the effectiveness of marketing campaigns by focusing on messages that resonate with key groups. You should couple this type of segmentation with demographics, where consumers fall on the curve, geography, attitudes, and behaviors. E Source, with partner Claritas, has developed robust EV segmentation approaches that can identify households that are more likely to want and buy EVs. Contact us for more information.

This is the first of a series of blog posts we're developing on EVs and electrification. Stay tuned for topics such as EVs for low-income customers, the role of dealerships and salespeople, the importance of public charging infrastructure, and how to tackle range anxiety.

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