

PAIN POINT OR MOMENT THAT

MATTERS?
Why or why not?

EV-specific barriers derived from GM Electric Vehicle Ethnography December 2018. No, neither: Observation is passive and often unconscious (customers may not be in-market) so it isn't painful or a point where a conscious decision will be made.

Barriers: Ads don't show the customer what they really want to find out.

No, neither: The customer is just beginning to engage with potential options which typically isn't painful, and it is too early for any specific decisions.

Barriers: Lack of EV owners to talk to with experience.

No, neither: Although customers are more actively seeking information, this is a lower stress activity (building a consideration set) and may be too early to create value from a specific brand.

Barriers: Lack of EV choice available to them.

Yes, this is a Pain Point: Realizing the need to shop is not always pleasant; many "triggers" can be negative. 9% of customers report negative emotions during this activity.

Barriers: Inability to match desired vehicle to household budget.

Fluid cycle; start and end at any point

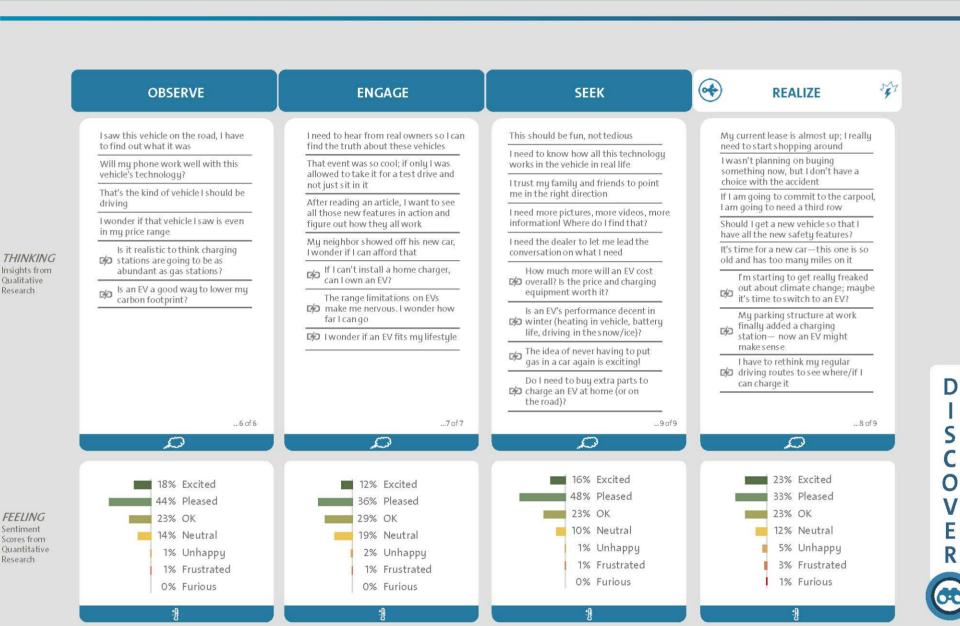
Time based; butcan occur out of order

Decision point;
diverges into paths

Activity is a quantifier

Activity is a quantifie Pain Point

Unique to EV







PAIN POINT OR MOMENT THAT

Why or why not? EV-specific barriers derived from GM Electric Vehicle Ethnography December 2018.

No, neither: Customers have many research options that work for them, so this is a relatively painless task-and even enjoyable for some.

Barriers: Cost premium, dealer knowledge level, understanding of total cost of ownership and tax incentives

No, neither: The customer is narrowing their consideration set using a variety of inputs and ultimately aren't stressed about making a final decision yet.

Barriers: Finding other EV drivers for an honest assessment.

No, neither: The trial experience (physical or virtual) is generally positive, and there may not be pressure to commit at this point.

Barriers: Product availability, no EV test drive offered, dealer knowledge

Yes, this is a Moment that Matters: This critical decision results in a sale or a loss for the brand or dealer. 72% say this decision point is positive because they're looking forward to the new

Barriers: Dealer is not excited about EV and is trying to sell me a different car that is on the lot.



Decision point; diverges into paths Activity is a quantified Moment that Matters

Unique to EV

MATTERS?

RESEARCH

Is this my "all in" price? I don't want to see additional charges at the end

There are certain features I want but a price I can't exceed

I want to conduct my research based on features, not by model/brand

How do I know I am getting all the right information and best price for this vehicle?

[5] Is fast charging available?

(5) Is an EV a real option for me?

How different are the costs of operating/owning a gas-powered vehicle versus an EV (overall price, incentives, tax credits)?

[50] I need to understand what type of charging options are available to me where I live/work

VALIDATE

I hope my coworkers and family think I am making the right choice

I am going to ask my Facebook friends what they think

Wow this got great reviews—it's definitely staying on my list

I need to make sure my sources are reliable

How will my insurance rates change when/if I get this new vehicle?

Why can't I compare different models and brands at the same time?

🖒 Can I really make an EV work with my lifestyle?

☐ Is an EV the attitude I want to project?

My EV owner friends have some good things to say

...9 of 9

EXPERIENCE

I want to try the exact vehicle I want

Let me check it out, but save the

The salesperson is showing me all these awesome features, I wonder how much it will increase the price

Why doesn't my research match what the dealer is telling me?

Test drives today aren't long enough I borrowed my friend's car and now I

want all this new technology

Why do I know more about the features on this EV than the dealer? CFO Driving an EV is really different

...9 of 9

[40] I'm nervous about chargingshow me how that works

This is exactly what I was looking for,

DECIDE

When I look at all the options and features I want, can I really afford this vehicle?

I did my research, so I know I am getting the vehicle for the price I want

The dealer offered me less than I was expecting for my trade-in — this changes everything

This may not be the best time to get a new vehicle. I think I'll wait

Hike that the dealer listened to me. When I'm ready to buy I'll come back

1 have been thinking about EVs for years—now is finally the time!

The dealer is not excited to sell me an EV—he wants me to decide on something different

...8 of 8

FFFLING Customer Sentiment

THINKING

Insights from

Qualitative

Research

15% Excited 42% Pleased 27% OK 12% Neutral 1% Unhappy 2% Frustrated 0% Furious

19% Excited 42% Pleased 25% OK 12% Neutral 1% Unhappy 1% Frustrated

0% Furious

20% Excited 44% Pleased 23% OK 10% Neutral 1% Unhappy 2% Frustrated 0% Furious

23% Excited 43% Pleased 17% OK 9% Neutral 1% Unhappy 1% Frustrated 0% Furious



NEEDS

quantitative research, ranked by

importance

a vehicle, service, or experience

that ...

I want/need

Responses from all GM owners

From

RESEARCH

Provides a final dealer price upfront without surprises

Allows you to select exactly the features you want instead of choosing between packages of features

Provides a guaranteed quote that will match the final price at the dealer so there are no surprises in your estimated monthly payment

Provides an accurate trade-in value for your current vehicle before you negotiate for your new vehicle

VALIDATE

EXPERIENCE

Provides you with enough information about a recall on a vehicle you're considering to make a confident purchase

Helps you understand your bottom-line price, including all the offers and incentives that apply to you

Provides a collection of third-party reviews, ratings and awards in one place to help you narrow your vehicle choices



Allows you to test-drive a vehicle for at least 24 hours so you can really understand how comfortable the vehicle is in real life

Allows you to experience vehicle features and technology so that you feel confident these features are right for you Allows you to test-drive a vehicle for at least 24 hours so you can really understand how the vehicle performs

\bigoplus DECIDE

Ensures the dealer respects your needs during the buying process when you're purchasing a vehicle in an urgent situation (vehicle totaled in accident, etc.)

Provides special offers (i.e., discounted vehicle price, incentive, discounted service) to recognize your previous purchases from that dealer or manufacturer

Helps you get the right vehicle to purchase or lease when you need to replace your current vehicle quickly

Recommends the best time to buy or lease a new vehicle based on your specific warranty, repairs, lease or purchase terms

Responses from EV owners only

Makes it easy to understand how things like accidents, potholes, puddles and inclement weather impact electric vehicle safety

Makes you knowledgeable about the technology features in the vehicle to ensure you're selecting the right vehicle for you

Provides you with enough information about a recall on a vehicle you're considering to make a confident purchase

Provides you all the information you need to have a conversation with your employer or landlord about installing charging equipment for you to use

GO Gives you an estimated itemize breakdown of home charging installation costs

Provides you with take-home materials that summarize the information on the specific vehicle you test drove

Allows you to test-drive a vehicle for at least 24 hours so you can really understand how comfortable the vehicle is

Ensures that the features (e.g., power seats, heated seats, power windows) in your electric vehicle are as refined as in a gas-powered vehicle

GENERAL MOTORS -

Helps you know what you need to do before your lease ends (vehicle inspection, etc.) Recommends the best time to buy or lease a new vehicle based on your specific warranty, repairs, lease or purchase terms

Offers advice so you can determine if now is the right time to buy your next vehicle based on your changing needs

Helps you understand the differences between leasing or purchasing your next vehicle so that you can make an informed decision

S H 0 P



PAIN POINT OR MOMENT

Yes, this is a Moment that Matters: Finding the vehicle the customer wants creates the strongest positive emotion in this stage of the journey. It is critical the customer finds what they want with minimal effort.

Yes, this is a Pain Point: When the dealer is unable to find what they want it creates frustration and unhappiness for 6% of customers, which in turn negatively impacts the sale.

Barriers: Lack of dealer inventory and the wait period.

Yes, this is a Pain Point: 10% of customers feel negatively about the effort to negotiate the best price. Customers often feel that they have been misled when it comes to incentives and offers and getting to the final "all in" price of the vehicle.

Barriers: Inability to sift through the tax incentives and the EVspecific rebates.

Yes, this is a Pain Point: 7% of customers have negative feelings about the purchase process which includes ccurate final price, the amount of time it takes, and just an overall bad dealer experience. This is a point of no return for the customers and these triggers could cause customers to rethink the purchase.

Barriers: Frustrated with the need to work with multiple entities to fulfill EV needs.

Yes, this is a Pain Point: Securing financing at an affordable rate combined with high sales pressure tactics for "add-ons" causes pain for the customer. In addition, the timeconsuming and often manual processes creates frustration and unhappiness for 6% of customers.

Barriers: Uncertainty around the cost and the options for home charging.

KEY Fluid cycle; start and end at any point Time based; but car occur out of order

Activity is a quantified Moment that Matters Activity is a quantified Pain Point

Unique to EV

THAT MATTERS?

EV-specific barriers derived from GM Electric Vehicle Ethnography December 2018.

FIND/SELECT

I can't find the vehicle with the

I need at a price that I can afford

and not listening to me

I feel like the dealer is being too pushy

Why can't I have the one that I built

Where is the vehicle? The dealer's website showed they had one on the lot

What will adding these running boards do to my payment?

Do I have to go through a dealership to

buy it, or can I buy online?

pricing

E/0

I know I want OnStar but I don't

understand all the packages and the

What are my charging options and how do I select the right one?

I shouldn't have to search so far

away to find the EV that I want

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NEGOTIATE/PRICE

Guarantee I can get the best price or I will go somewhere else

I'm not confident I got a good deal. How can I tell?

I love negotiating with the salesperson, because that's how I get the best deal

Do I have to go through the dealer for financing? I might be able to get a better interest rate somewhere else

I don't want to tell the dealer I have reward points to redeem until after they give me the final price

How much will I save if I go with an annual plan versus a monthly payment?

Maybe I should consider leasing

since I'm not sure that investing in an EV is worth the future savings

I didn't know I'd have to negotiate with home charging installers or get pricing for different charging options

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COMMIT

The vehicle and price just don't meet my needs right now

This is a big commitment—I need another day to think it over

I feel like I was rus hed through this whole process and I'm not sure

understand all the services I paid for This dealer isn't really listening to anything Isay

Everything looks in order, just like we

Hove this vehicle and all the new

technology, but it's really expensive

This investment will save me

money in the long run C/O

This is the right choice to help the environment I am so excited to be an EV owner!

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at all

FINANCE/PAY

There is way too much paperwork and

fine print; am I supposed to read all of

Maybe I need to talk to the sales manager

That went really smoothly. Not bad

this right now?

Let's wrap this up so I can get in the driver seat

How many points do I get for my purchase?

I prefer auto-pay; that way I don't have to remember to pay my bill every month

I hope the dealer and the insurance company work together quickly Do I really need an extra warranty on top of what the basic warranty

provides? Why couldn't I have done all this

Can I pay for my home charger in my monthly vehicle payment?

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FEELING

THINKING

Insights from

Qualitative

Scores from Quantitative Research



14% Excited 41% Pleased 23% OK 13% Neutral 4% Unhappy 5% Frustrated 1% Furious

17% Excited ■ 46% Pleased 20% OK 11% Neutral 3% Unhappy 3% Frustrated 1% Furious

14% Excited ■ 45% Pleased 22% OK 14% Neutral 3% Unhappy 2% Frustrated 1% Furious



FIND/SELECT

llows you to select exactly the features ou want instead of choosing between ackages of features

Allows you to purchase only the features you want without having to upgrade or downgrade to a package that doesn't meet your needs

Allows you to experience vehicle features and technology so that you feel confident these features are right for you

Allows the dealer to find exactly the vehicle you want regardless of its location and get it for you

NEGOTIATE/PRICE

Gives you confidence that you negotiated a fair price for the vehicle you're buying

Allows you to get the best deal without haggling with the dealer

Assures that the vehicle pricing you found online will be honored by the dealer

Gives you confidence that you received a fair price for the vehicle you're buying

Ensures the vehicle estimate the dealer provides matches the final price when you're ready to buy

•

Provides clear, itemized contract paperwork that explains your deal before you have to sign

COMMIT

Allows you to easily confirm that what's in the final contract is what you had agreed to verbally

Provides financing paperwork that's accurate the first time

FINANCE/PAY

Provides clear, itemized contract paperwork that explains your deal before you have to sign

Helps you understand your bottom-line price, including all the offers and incentives that apply to you

Offers an honest assessment of vehicle "add- ons" so you know which ones are worth buying (e.g., extended warranties, protection plans, accessories)



NEEDS From quantitative research, ranked by

importance I want/need a vehicle, service, or experience that ...

Responses from all GM owners

Responses from EV owners only

Allows you to purchase only the features you want without having to upgrade or downgrade to a package that doesn't meet your needs

Allows you to find exactly the vehicle you want regardless of its location and a local dealer who would get it for you

Allows the dealer to find exactly the vehicle you want regardless of its location and get it for you

Assures that the vehicle pricing you found online will be honored by the dealer

Provides a single point of contact throughout the shopping, buying, financing and delivery steps

Gives you confidence that you negotiated a fair price for the vehicle you're buying

Provides financing paperwork that's accurate the first time

Provides clear, itemized contract paperwork that explains your deal before you have to sign

Provides an "itemized receipt" of exactly what you bought (accessories, features, etc.) before you leave the dealership

Ensures the vehicle estimate the dealer provides matches the final price when you're ready to buy

Provides financing paperwork that's accurate the first time

Provides clear, itemized contract paperwork that explains your deal before you have to sign

Provides you with a customized statement of cost savings that you qualify for (e.g., manufacturer sales, tax incentives, state rebates, your income) to help you determine your final vehicle price

Allows the dealer to get proof of insurance from your insurance company with your permission



PAIN POINT THAT

Why or why not?

EV-specific barriers derived from GM Electric Vehicle Ethnography December 2018.

Yes, this is a Moment that Matters: This is an exciting time for the customer and a key moment in the onboarding process.

It is critical that they are happy with the outcome. 76% of customers report feeling excited or pleased about their experience.

Barriers: Poor explanations of key EV features and lack of understanding of what impacts range and battery usage

Yes, this is a Pain Point: This moment validates that the customer made the right decision. This activity

is the peak of the emotional journey and 93% of customers have a positive emotion (the highest positive emotion through out the entire journey).

Barriers: Not receiving a special celebration at the dealer (feeling like it is just another sale).

No, neither: Generally, this is still a positive experience as customers learn new features of their vehicle. Frustration may occur if the customer finds materials confusing.

Barriers: The dealer's lack of understanding of EV leads to an overview that is basic

No, Neither: Customers expect to be able to personalize and customize their vehicle to meet their needs. This is a routine and rather straightforward activity and 67% are pleased or excited with their experience.

Barriers: Cost of home charging installation and difficulty configuring personal vehicle settings including charging preferences.

Yes, this is a Pain Point: The customer's satisfaction and happiness at this point is a "make or break" moment for their relationship with the dealer and/or brand. 30% find this to be just an OK or neutral experience..

Barriers: Adjusting one's lifestyle for EV and fear of trying features that are not clearly understood.

KEY Fluid cycle; start and end at any point Time based; but can occur out of order

Activity is a quantified Moment that Matters Activity is a quantified Pain Point

Unique to EV

An emotional break with the brand

OR MOMENT MATTERS?

FAMILIARIZE

There are still a few things I

the manual

so I can get going

which ones Hike

don't understand after reading

I prefer to figure things out as

Just show me how this works

I think I'll sign up for all the free trials for these services and see

There's a lot to absorb about

Is there someone at the dealer I

can call/visit if I have questions?

I'm going to look this up on YouTube so I can see how it

these new vehicles; I hope I remember it all

I think this dashboard

interaction is fun

CUSTOMIZE

Why did they ask for my

I want it to feel like mine -

my settings, my stuff, my

Is it worth it to pay for more

automatic and how will I know when they're available?

Once I set it up, this car can do

Are updates/upgrades

How do I set up the seat

adjustment presets again?

charging at night

ineed a plan for where to

charge (and what to do)

i'm starting to get used to

a lot on its own

information again?

music, etc.

add-ons?

ASSESS

This is the nicest, most high-

tech vehicle I have ever owned

I feel my dealer will have my

I'm not used to people staring at my car or asking me

I don't even know if I am using all the features I paid for

The quality on my old vehicle

towing and some of the other

I made the right choice —

[I am so excited to have very little maintenance or gas

and it will help the

environment

expenses!

I feel like I didn't get what I wanted when it comes to

was better than this

questions about what I drive

back throughout mu

ownership experience

everyone

features

I will recommend this to

(*

THINKING Insights from Qualitative

After all the research, it's finally going to be mine How long is this process going

GET

to take? This is a great experience — the dealer has taken really good care

of me throughout the process

Will I remember or use all this technology stuff?

They are doing this overview way too fast — I need more time

How will I explain all of these features to other drivers in my household?

I hope the dealer reminds me what to expect since this is my first EV

Will they give me a cheat sheet to help me remember the basics?

I wish they spent more time explaining the battery

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29% Excited 47% Pleased

15% OK 7% Neutral

1% Unhappy

1% Frustrated

0% Furious

Scores from Research

FEELING

CELEBRATE

This is just what I wanted!

I can't wait to show this off to my friends and family

Hove driving this vehicle This is the coolest car I have

ever bought I love the ride and acceleration

Driving to work will be so much

Road trips are going to be the most entertaining and

comfortable now

1'm excited to finally be an EV owner!

 I was not expecting a smooth ride and acceleration

37% Excited

6% Neutral

0% Furious

CELEBRATE

Provides a customized route for you to take your new vehicle on a "joy ride" to help you really experience your vehicle's performance

Enables the dealer to show appreciation for your purchase other than posting on social media

Commemorates your vehicle purchase at the dealership (e.g., picture, bow on vehicle)

1% Unhappy

1% Frustrated

45% Pleased

11% OK

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works step by step 🖒 Am I charging this right?

1'm going to start with the 110V charger and then decide if the 240V is needed

...10 of 10

20% Excited

45% Pleased

10% Neutral

2% Unhappy

2% Frustrated

0% Furious

22% OK

21% Excited

...8 of 9

46% Pleased 20% OK

10% Neutral 1% Unhappy

2% Frustrated

0% Furious

CUSTOMIZE

Let's you control how and when you want to be alerted by your vehicle (e.g., theft notification, low tire pressure)

Gives you clear and easy to understand pricing for add-on in-vehicle services and features (e.g., emergency services, radio subscriptions, Wi-Fi)

Allows you to know what alerts and notifications are available for your vehicle and sign up for the ones you want

Let's you decide when and how you want your vehicle manufacturer and dealer to send you information

I'm pretty much an EV expert at this point

14% Excited

47% Pleased

10% Neutral

3% Unhappy

1% Furious

1% Frustrated

20% OK

...10 of 12

Quantitative

NEEDS From quantitative research, ranked by importance I want/need a vehicle, service, or experience

Responses from all GM owners

Responses from EV owners only

that ...

Clearly explains all the services that are included in your new vehicle without pressuring you for additional purchases (e.g., emergency services, radio subscriptions, Wi-Fi)

GET

Eliminates sales pressure to buy other items from the new vehicle pick-up experience and lets you focus on your new vehicle Allows you to choose when, where and in what condition your new vehicle will be delivered

Provides you with take-home materials that teaches you about the features and technology on your specific vehicle

Commemorates your vehicle purchase at the dealership (e.g., picture, bow on vehicle)

FAMILIARIZE

Explains all of your vehicle's features in easy-to-understand terms

Clearly explains all the services that are included in your new vehicle without pressuring you for additional purchases (e.g., emergency services, radio subscriptions, Wi-Fi)

Helps you learn about new technology in your vehicle in easy-to-understand terms

Connects you with an expert to set- up your new vehicle while you watch, so that you can understand how the features work

Allows you to personalize the look and feel of the information displayed in your vehicle

Allows you to see how available accessories will look on your new vehicle

(4) **ASSESS**

et's you return your new vehicle. f you decide it's not right for you Gives you the ability to add features after you purchase your

Makes it easy to share information about your new vehicle with friends, family or people with similar interests

Helps you choose the right add-on in-vehicle services (e.g., emergency services, radio subscriptions, Wi-Fi) for your budget

Provides access to an expert (e.g., in person, online) that can teach you how to charge your electric vehicle

Let's you sign for and pick up your new vehicle at a place that's convenient for you

Provides a customized route for you to take your new vehicle on a "joy ride" to help you really experience your vehicle's performance

(\$2) Enables the dealer to show appreciation for your purchase other than posting on social media

Allows you to learn about and set up your new vehicle on your own while you wait for delivery weather and driving behavior will affect your battery performance

The Provides a go-to technology expert (e.g., in person, online, through in-vehicle "smart" assistant) to answer your questions about your new electric vehicle when you first get it

DLet's you return to the dealership at any time to learn or ask questions about your new vehicle

Allows you to calculate if it is worth it to install a charging station in your garage based on how long you plan to keep your electric vehicle

Offers ways to learn about and program your settings before you pick up your new vehicle from the dealer

Gives you the ability to add features after you purchase your vehicle

Let's you return your new vehicle if you decide it's not right for you Makes it easy to share information about your new vehicle with friends, family or people with similar interests

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