Q3 2016

Value Discovery: How Automotive Brand Affects Used Vehicle Prices

AT A GLANCE

- Core purchase drivers
- Brand perception vs. reality
- Premiums by vehicle brand
- Leveraging brand value for new vehicle pricing
Introduction

A brand’s name immediately brings to mind specific products or services, as well as their perceived characteristics—whether good or bad. It’s this reputation that ultimately determines brand value, or the premium consumers are willing to pay for products or services above and beyond their functional attributes.

Understanding and developing brand value is critical to the success of any business. This is especially true in the automotive industry, where the lifetime cost of the product is generally second only to that of a home. But building a strong auto brand doesn’t come easily, given the industry’s capital-intensive, product-driven nature. It takes numerous years of product excellence to develop a positive reputation, while missteps can quickly erode brand equity. The challenge is even greater in an era when automakers are producing some of the best-looking, most dependable vehicles ever to roll off an assembly line.

Brand reputation affects value in multiple ways. Highly perceived auto brands enjoy greater consumer awareness, which in turn increases the likelihood that buyers will consider their models. Strong brands also generate a more loyal customer base that is likely to champion the use of their products.

Brand perception plays an important role in used vehicle demand as well. Used vehicles from brands with an established history of successfully meeting buyers’ most critical needs usually sell for more than the competition. This consistent ability to satisfy core purchase drivers gives stronger brands an innate advantage in cost-of-ownership and residual value. To better explain this cause and effect, this report explores the brand characteristics that drive auto purchase behavior, and their impact on used vehicle prices.

![Figure 1](image_url)

**Top Reasons for Purchase, Mainstream Brands**

- Exterior styling: 57%
- Interior styling and comfort: 57%
- Reliability: 56%
- Gas mileage: 54%
- Performance (power, handling, etc.): 45%
- Quality of workmanship: 44%
- Latest technology features: 37%
- Safety: 35%
- The “deal”: 35%
- Image the vehicle portrays: 34%
- Cargo capacity: 33%
- Low maintenance costs: 30%
- 4WD/all-wheel drive capability: 29%
- Low price or monthly payment: 23%
- High resale value: 22%

*Top Reasons for Purchase, Mainstream Brands | Source: J.D. Power 2016 U.S. Auto Avoider Study*
Identifying Core Purchase Drivers

The J.D. Power Auto Avoider Study℠ examines the reasons consumers purchase, reject and avoid models in the marketplace when shopping for a new vehicle. Conducted annually for the past 13 years, the study is designed to help manufacturers increase new-vehicle shopper consideration rates, close rates and sales by increasing awareness and reducing avoidance in the shopping process. The study is based on responses from tens of thousands of new vehicle buyers surveyed within 90 days of purchase.

Among many important takeaways, the study reveals that consumers have consistently emphasized the same purchase priorities over the past several years. For mainstream brand buyers, exterior styling, interior styling and comfort, reliability, gas mileage, and performance were the top 5 reasons for purchase in the J.D. Power 2016 U.S. Auto Avoider Study℠ (figure 1, page 2). While the rank order has changed, this group has comprised the top 5 reasons for purchase since the 2012 study.

As for premium brand buyers, exterior styling and interior styling and comfort were also the two primary purchase reasons in 2016’s study, followed by quality of workmanship, performance and reliability (figure 2). Similar to the purchase drivers for mainstream buyers, this group has comprised the top 5 purchase reasons since 2013’s study.

Top avoidance and rejection reasons have generally correlated with purchase reasons over the past several years. Vehicle cost aside, the Avoider Study
shows that consumers actively avoided competitive models from the same segment they ultimately purchased from (e.g., compact car), primarily because they did not like the exterior look or design (31%), did not like the interior look or design (17%), or were concerned about reliability (15%) (figure 3).

Avoidance due to unsatisfactory gas mileage ranked lower (9%); however, this could be ascribed to the emotive draw of design and the practical importance of upfront cost and long-term reliability in deciding which vehicles to target early in the shopping process.

As rejection (and purchase) responses show, fuel economy as a differentiator between models takes on greater importance as consumers move down the purchase funnel. In the 2016 study, for example, the desire for better gas mileage (13.6%) was the second most frequently cited reason for rejecting a competitive model when physically shopping at a dealership, with “price/monthly payment too high” (32.1%) as the top reason. Interior design (12.8%), limited vehicle size (12.6%) and exterior design (12.1%) followed fuel economy as top reasons for rejection. These 5 reasons also held their respective positions in the 2012–2015 studies.

When viewed across each respective study area, Avoider data continually points to the importance of design, reliability, fuel economy and performance (to a lesser extent) in influencing consumer purchase decisions. While other factors are inarguably significant, these remain among the most critical in deciding what, or what not, to buy.
Brand Perception Within Core Purchase Areas

Avoider data also reveals how consumers view brands within each primary purchase area. As figure 4 illustrates, consumers have a very strong opinion of Porsche’s design language.

Compared to other premium brands, consumers are much more likely to purchase a Porsche model for its exterior styling, and they are also less likely to avoid a Porsche for the same reason. MINI is another clear outlier. Consumers who purchased a MINI did so largely because of its exterior styling; however, the brand was also avoided at an above-average rate for this reason.

Avoidance due to exterior styling is roughly on par with the non-premium sector average for Honda, Subaru and Toyota, but exterior styling is a weak purchase driver for this sector. The opposite is true of reliability. Avoider Study results show that the three Japanese brands—along with Acura and Lexus—have a strong reputation as purveyors of durable vehicles.

So, how well does perception match reality? The J.D. Power Vehicle Dependability StudySM (VDS) helps provide insight into this question. The VDS examines problems experienced during the past 12 months by original owners of 3-year-old vehicles. Overall dependability is determined by the number of problems experienced per 100 vehicles (PP100), with a lower score reflecting higher quality.

While changes to survey content and methodology mean that VDS results from generation to generation should be compared with caution, the study shows that vehicle dependability has improved tremendously over the last 2 decades. In the early 2000s, industry VDS scores were north of 250 PP100, but by the second half of this decade, scores had declined by roughly 40% (figure 5, page 6). It should be noted that while...
VDS scores have deteriorated somewhat over the past few years, the decline is due primarily to infotainment, navigation and in-vehicle communication shortcomings, rather than the mechanical systems necessary to get a vehicle from point A to point B.

While every nameplate has vastly improved durability, certain ones stand out, including Kia, Mercedes-Benz, GMC, Audi and Chevrolet. Of particular note are the brands that have maintained their position at the top of the dependability leaderboard. For example, Lexus’ PP100 scores were, on average, 56 points below the overall industry mean over the past 10 years, while Buick’s and Toyota’s PP100 scores were more than 30 points lower (figure 6, page 7).

Despite this long-running durability advantage, consumers don’t perceive dependability leaders equally. For example, Lexus, Toyota, Porsche, Honda and Acura have not only maintained below-average VDS scores for an extended period of time, but Avoider Study results also reveal that consumers were much less likely to avoid these brands due to reliability concerns (figure 7, page 8). Conversely, consumers were more likely to avoid Chevrolet, Buick, Lincoln and Cadillac because of reliability, even though PP100 scores were also well below average.

As Avoider data shows, new vehicle buyers place significant emphasis on reliability and quality of workmanship. A survey conducted on NADAguides.com indicates that dependability factors are even more important to used vehicle buyers.1 When asked to select the 3 most important factors in determining which vehicle to purchase, an overwhelming 63% of used vehicle buyers included reliability (figure 8, page 9). Next

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1 Q. Please select the three most important factors in determining which new or used vehicle to purchase. 
was the related factor of low maintenance costs (33%), followed by low purchase price or monthly payment (30%). Interestingly, price-conscious used vehicle consumers rated exterior and interior design much lower.

The importance of addressing reliability concerns—whether real or perceived—can’t be overstated, as these concerns extend beyond quality to affect resale value, maintenance and even safety impressions (figure 9, page 10). Thus, a poor-quality image carries significant weight in negatively affecting long-term demand and brand value.

**Brand Value and Used Vehicle Prices**

In theory, automotive brands that consistently excel in meeting consumers’ primary ownership needs enjoy higher brand value than those that don’t. But before delving into NADA Used Car Guide’s brand value results, a review of the methodology employed is necessary.

Brand value estimates are generated using a hedonic pricing model. This form of regression model estimates the price of a given used vehicle by breaking it down into its component parts. Similarly to the way a house’s value is based on the number of bedrooms and bathrooms it contains, a vehicle’s brand value can be estimated by measuring physical features such as body type (sedan, convertible, etc.), drivetrain (diesel, hybrid, etc.) and performance-related characteristics (horsepower, torque, fuel economy, etc.). In addition, variables are included to account for market-based factors like new vehicle incentives, the impact of redesigns or new model launches, and long-term durability.

Finally, because the value of a brand is closely tied to how its vehicles depreciate, brand value is
estimated with an interaction with age. In short, the model is carefully configured to ensure that the value assigned to each vehicle is due to its association with a given brand.

As for underlying data, model results are based on the last 5 calendar years of new retail sales and used retail and wholesale sales for all light-duty vehicles up to 8 years in age. A related estimate of how brand values have evolved over time is based on the same model, but with more than 20 years of history and an interaction between brand value and year of the sale.

**Brand Value Results**

A brief interpretation of brand value figures is also required before reviewing results. Brand value figures are to be viewed as the difference in nameplate effect, either positive or negative, relative to a specified mean. For example, assuming wholesale used vehicle prices averaged $18,000 at the industry level, a nameplate with a brand value of 10% would hold a $1,800 premium above the overall market average (again, after controlling for incentives, model age, horsepower, etc.).

With that in mind, Porsche’s sterling reputation for design, performance and image of excellence — each of which was apparent in Avoider Study results — set it at the top of the luxury sector with a 23% brand value premium (figure 10, page 11). The result is that a used Porsche model carries a price about $5,700 higher than an otherwise similar $25,000 used luxury vehicle.

Lexus’ 8% brand value premium is a distant second to Porsche among luxury brands, followed by BMW (5%), Land Rover (3%), Audi and Mercedes-Benz (both 2%). Avoider data shows the group as being
perceived leaders in reliability (Lexus), performance (Audi and BMW), design and image (Land Rover), and level of workmanship (Mercedes-Benz).

Arguably stifled by perceived quality concerns, Cadillac (-10%) and Lincoln (-14%) had the lowest luxury brand value figures. In dollar terms, it’s estimated that the Cadillac and Lincoln brands subtract $2,625 and $3,475, respectively, from a comparable $25,000 used luxury vehicle.

With respective brand premiums of 21% and 13%, MINI and Toyota are the two highest ranking non-luxury nameplates (figure 11, page 12). While MINI’s unmistakable exterior design language and the smaller size of its models reduce its customer footprint, those who purchase a MINI do so primarily because of its unique characteristics. Avoider data also shows that MINI is highly prized for fuel economy and performance. In dollar terms, a used MINI carries a price about $3,100 higher than an otherwise identical $15,000 used mainstream vehicle, while Toyota’s brand adds $1,900.

Even though Toyota’s models are less likely to be purchased because of their looks, the company’s entrenched reputation for quality, reliability and fuel efficiency makes its models highly desirable nonetheless, particularly for pragmatic used vehicle buyers. Toyota models are also sought after because of their high resale value. The same holds true for Honda.

The fact that Jeep’s 8% brand premium is slightly above Honda’s 7% figure could be viewed with some surprise, given their disparate reliability
reputations (both perceived and actual). However, Jeep’s value is supported by an iconic reputation for off-road prowess and the emotive image it conveys. Similarly to MINI, Jeep buyers have consistently rated image portrayal highly in the Avoider Study.

Mainstream nameplates with below-average brand value generally have mixed reputations regarding design, reliability and image appeal. For example, Avoider data indicates that Nissan’s designs are a bit more polarizing than those of either Toyota or Honda, while Ford is more likely to be avoided due to reliability concerns.

There is a strong correlation between NADA Used Car Guide’s brand value results and consumer perceptions for the industry’s weakest nameplates, as Dodge, Mitsubishi and Chrysler are either viewed as having, or actually do have, weak durability track records. In addition, Avoider data indicates that more consumers bought the brands’ models because of deals and steeper discounts, compared to other mainstream brands (a symptom of weaker product attributes). The relative product malaise means that a used Dodge or Mitsubishi is priced roughly $3,400 below a comparable $15,000 used mainstream vehicle (-23%), while prices for a used Chrysler are even lower, at $4,350 less (-29%).

It should be noted that while brand values for Hyundai (-16%) and Kia (-21%) are well below the mainstream mean, they have grown by an average of 3.5 percentage points, or $460, per year over the past 10 years—the most among all nameplates.

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**Figure 9**

![Difference in Avoidance Due to Reliability Concerns](image_url)

**Source:** J.D. Power 2016 U.S. Auto Avoider Study

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1. Adding to their long-term durability improvements, Kia and Hyundai were also the first and third highest-ranking nameplates in the J.D. Power 2016 U.S. Initial Quality Study. 

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This is consistent with the brands’ steady improvement in quality, reliability and design, along with the positive awareness they have generated. For example, avoidance due to reliability concerns improved by an average of 6 percentage points over the past 5 years, while depreciation concerns fell by 7 points, both best among mainstream brands.

**Conclusion**

The brands that consistently set the standard for reliability, craftsmanship, fuel efficiency and design unquestionably enjoy economic advantages over the competition. For example, various J.D. Power studies reveal dependability has a direct impact on future demand by way of brand loyalty and brand advocacy. In the J.D. Power 2016 U.S. Auto Avoider Study, 55% of owners reporting no issues with their vehicle purchased the same brand again, while just 41% of owners who experienced 3 or more problems stayed with the same brand for their next purchase.

Brand reputation also affects pricing power. Associated brand disparities influence not only new vehicle prices and incentive levels, but also how well a vehicle retains its value as it ages. As explained, two otherwise identical used vehicles produced by separate automakers will experience different levels of demand, and thus pricing, due to brand reputation. The fact that highly respected brands are also frequent leaders in retained value is an important one. How well a vehicle holds its value over time affects overall ownership costs, which influences consumer shopping behavior.

Retained value also plays a critical role in new vehicle leasing. All else being equal, monthly lease payments will be lower for a high-retaining vehicle because there is less principal to pay off over the lease term. Understandably, lower
payments give higher-retaining brands a leg up on the competition. This is especially relevant in an age when manufacturer dependency on leasing is at an all-time high. Lease share of new retail deliveries reached 31% over the first 8 months of 2016, up sharply from a 24% share reached just 3 years earlier.

A dedicated approach to identifying, measuring and nurturing the factors that are most important to new and used vehicle shoppers is the surest way for automakers to build deep-seated intrinsic value. Doing so allows manufacturers to rely less on price-based motivation and helps preserve revenue potential in an environment of stiffer competition, flattening new vehicle sales and lowering used vehicle prices—exactly where the industry finds itself today.

In addition, understanding brand value for used vehicles is an important input for automakers to use when determining where to price and position new vehicles, particularly all-new or redesigned ones. Given that manufacturer’s suggested retail prices (MSRPs) often bear little resemblance to actual new vehicle sale prices, they are a weak gauge for establishing competitive pricing. Since used vehicle prices are more a product of legitimate demand, they allow for a purer competitive brand benchmark. As such, understanding brand value in the context of used vehicles helps establish new vehicle prices rooted more in reality than in aspiration.

Figure 11
About NADA Used Car Guide

NADA Used Car Guide
Since 1933, NADA Used Car Guide has earned its reputation as the leading provider of vehicle valuation products, services and information to businesses throughout the United States. Its team collects and analyzes over 1 million combined automotive and truck wholesale and retail transactions per month, and delivers a range of guidebooks, auction data, analysis and data solutions. NADA Used Car Guide, a division of J.D. Power, provides a seamless view of timely, reliable new and used vehicle price information that helps automotive/truck, finance, insurance and government professionals make better business decisions. Visit nada.com/b2b to learn more.

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