

DRIVING QUALITY

Quantifying the link between quality and loyalty in automotive purchase

By Julia Hedrick, Thiago Ramos and Bharath Vijayendra | October 2020



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Most people intuitively recognise the value of an automotive manufacturer delivering great quality vehicles. Brands that deliver exceptional quality and reliability are the ones that customers are loyal to and recommend to their friends and family.

However, no matter what their stated beliefs or commitments, company leadership and shareholders will at some point demand evidence of the bottom-line impact of vehicle quality satisfaction. They will require evidence that the investments made in quality improvement initiatives actually contribute to growth in revenues, profitability, and other financial and market performance indicators.

Some companies have struggled to successfully demonstrate the linkage between product quality and loyalty, and studies that have attempted to evaluate this relationship have found the linkage hard to quantify. This has resulted in companies

believing that focusing on quality is just “the right thing to do” instead of something that is based on strong empirical proof.

For this reason, Ipsos has taken up the challenge of quantifying the relationship between quality and loyalty retention and how this contributes to long-term revenue and profitability. To support this analytical exercise, Ipsos integrated quality tracking data and customer loyalty across several manufacturers. The study focuses on the US and Brazil but the findings are also certainly relevant and applicable to other markets.

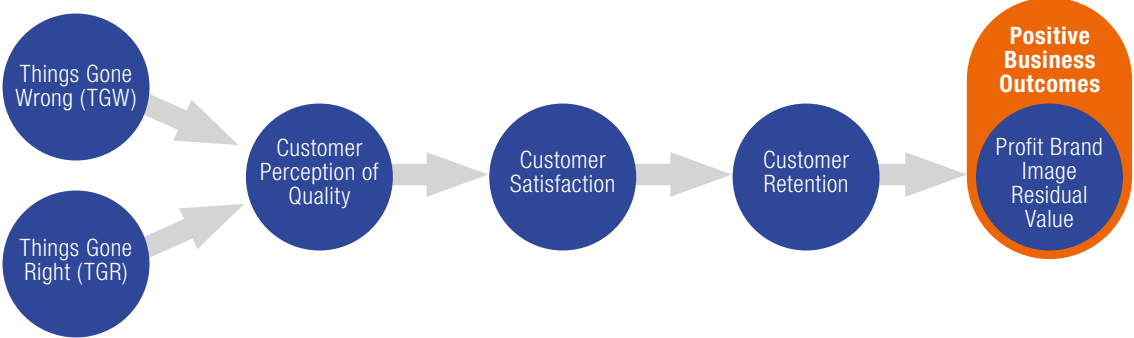
This paper confirms that the greater the level of vehicle quality satisfaction reported by the customer, the more likely the customer is to recommend the brand.

QUALITY – LOYALTY FRAMEWORK

The Ipsos’ framework that ties together quality, satisfaction and loyalty is an adaptation of the Satisfaction-Profit Chain principle that relates satisfaction to loyalty (Anderson and Mittal, 2000). The logic is fairly simple and intuitive: by improving customer perceptions of quality, customer satisfaction should increase.

There is consensus that customer satisfaction ratings are a means to strategic ends that directly affect profits, such as customer retention or loyalty (Reichheld, 1996). Research conducted by Ipsos and validated by other organisations has shown that increasing overall satisfaction leads to greater repurchase intentions, as well as actual repurchase behavior.

Figure 1 Comparing measurement options



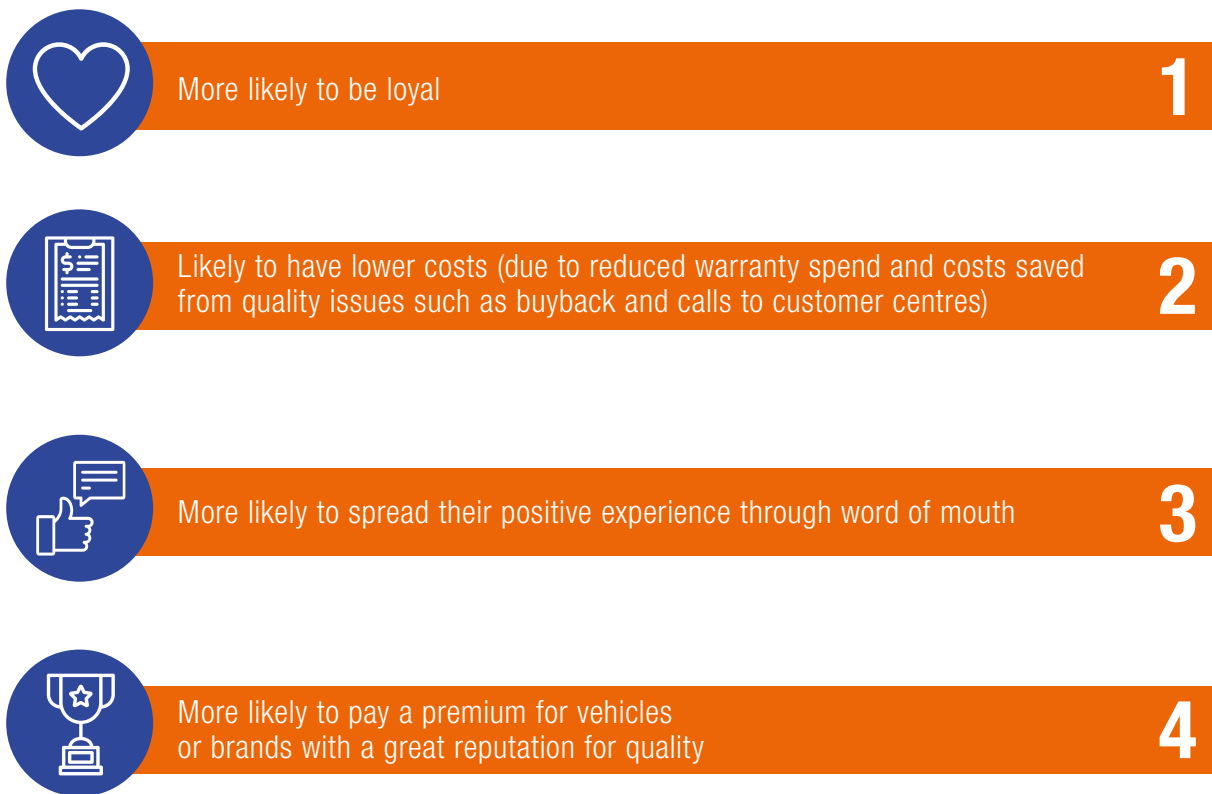
Source: Anderson and Mital (2000). *Strengthening the satisfaction-profit chain*

THE IMPORTANCE OF VEHICLE QUALITY

The Quality - Loyalty framework proposes that improved quality ratings makes good business sense because it results in a host of positive impacts from the perspective of the customer (see below).

We recommend that companies also consider other internal company indicators to judge the influence of quality on their financials such as customer complaints, recalls, returns or replacements, warranty repairs, and the costs of expanding the assessment of vehicle quality.

Figure 2 Attributes of customers satisfied with vehicle quality



DEFINING LOYALTY

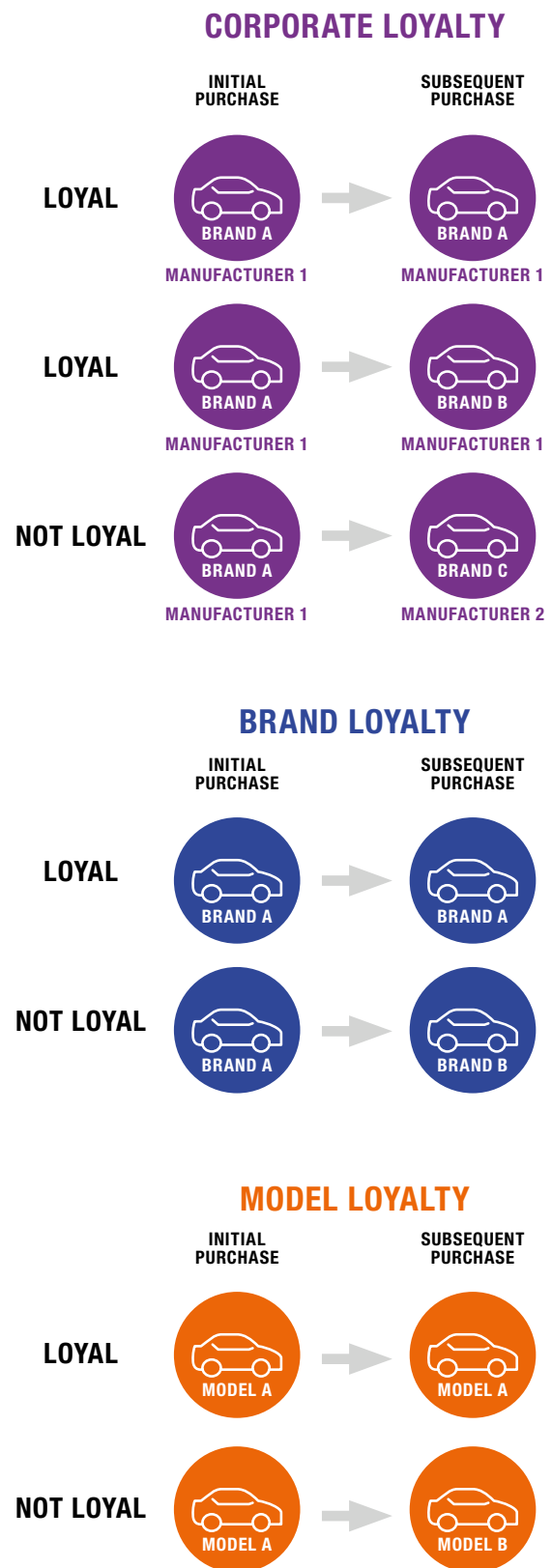
Customer loyalty has always been an important measure of success for automotive manufacturers. However, there is a lack of clear agreement on what loyalty looks like. Loyalty means different things to different manufacturers, and all of them may be correct in their own contexts. Loyalty can be evaluated from the perspective of corporate (VW Group, Nissan Motor), brand (Audi, Volkswagen, Nissan, Infinity), and model (Q7, Golf, Murano, Q50). So, if a customer previously owned an Audi but is purchasing a new Nissan, it will be *brand* loyalty that is negatively impacted.

Within each of the loyalty categories, there are several options for manufacturers to operationalize customer loyalty. Among these, the most popular are:

- **Repurchase loyalty:** Comparing the newly purchased vehicle with the customers prior vehicle, regardless of whether the original vehicle was replaced (disposed) or still owned (added to the household fleet).
- **Replacement loyalty** (or disposal method): Looking more specifically at the prior purchase which is being replaced in order to categorize loyalty.
- **Household loyalty:** Allowing for a more comprehensive but complex measure of loyalty, looking at the vehicle repurchase and replacement behaviour of all members of a household.

The analysis for this paper was based on both Corporate and Brand Loyalty using Replacement (disposed) methodology.

Figure 3 Loyalty categories



WHAT ARE THE QUALITY METRICS?

Quality tracking measurement systems for automotive manufacturing can tap into a variety of data sources, including:

- Vehicle survey feedback
- Warranty
- Customer call centre
- Field engineering reports
- Social media
- Technical hotline

A key measure of vehicle quality that can be derived from survey feedback is counting the incidence of 'Things Gone Wrong' (TGW) or 'Problems Per Hundred' (PPH) for vehicles, brands or by vehicle systems. This metric represents a customer report card for a model, assembly plant, brand or manufacturer and is usually a key input.

Another related metric captured through surveys is overall vehicle quality. This is typically asked on a 5- or 10-point rating scale question and scores are reported as a mean, top box or top 2 box measure. Within the context of vehicle quality metrics, some fundamental questions frequently arise:

- Does TGW and Vehicle Quality as a measure of quality correlate well with behavioural loyalty?
- Can TGW and Vehicle Quality metrics be used as leading indicators of business performance (for example, market share, profitability)?

These questions are not new, yet they remain only partially answered. Despite the prevalence of quality measurements, there is little published research that sheds light on these questions. In the next section, we will walk through an assessment and proposed framework to evaluate the relationship between quality and loyalty using these two quality metric definitions.



QUALITY AND LOYALTY MOVE TOGETHER

We looked at different sets of auto manufacturers in two markets (US and Brazil) using quality and business metrics common to both markets. As the vehicle purchase cycle is quite long in automotive (roughly 5-10 years depending on the country), we have set up the analysis to replicate the relationship between vehicle ownership experience evaluation and repurchase loyalty (most quality studies are conducted at 2-3 months in service). Given the analytical challenge of

linking an individual customer through the life cycle journey from providing early quality feedback through disposal, we looked at aggregated quality data from individual customer surveys over a period, and then evaluated loyalty at a subsequent point in time (8-10 years later).

Figure 4 helps to explain the methodology of linking vehicle quality metrics and loyalty.

Figure 4 Comparing measurement options



QUALITY IS A FUNDAMENTAL BUILDING BLOCK OF LOYALTY

Our analysis indicates a clear and positive relationship between vehicle quality rating and attitudinal loyalty (“likelihood to recommend”). In other words, the greater the level of vehicle quality satisfaction reported by the customer, the higher the likelihood that the customer would recommend the brand.

Vehicle quality perceptions vary across the vehicle ownership period because customers evaluate their vehicle based upon their cumulative experience over the ownership of the

product. Therefore, longer-term quality perceptions will have a greater impact on their overall ownership experience and repurchase behaviour.

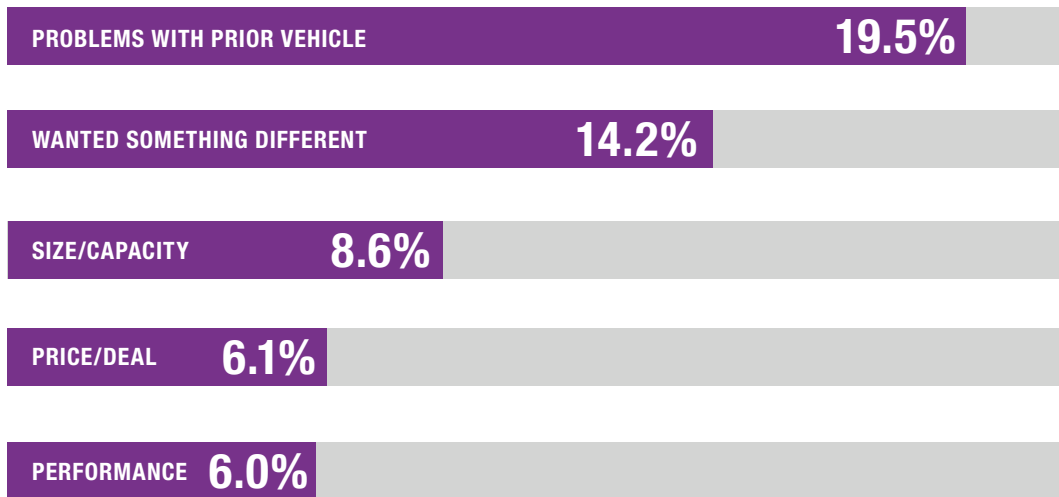
Ipsos analytics draw a clear line from Quality Measurement (QM) investment to financial return, quantifying the link between QM activities, favorable customer outcomes, and bottom-line results.

REASONS FOR DEFECTION

When the customer switches a car brand (defects), it directly impacts the manufacturer's revenue, simply because attracting new customers is more expensive than retaining existing ones. Understanding reason for defection – and those related to manufacturing or design quality – are critical to guide corrective actions and future product development.

One in five customers ultimately choose a different car brand because they have experienced problems with the previous vehicle they owned. These problems, or "Things Gone Wrong" are critical for customer satisfaction and retention.

Figure 5 Top reasons for vehicle defection



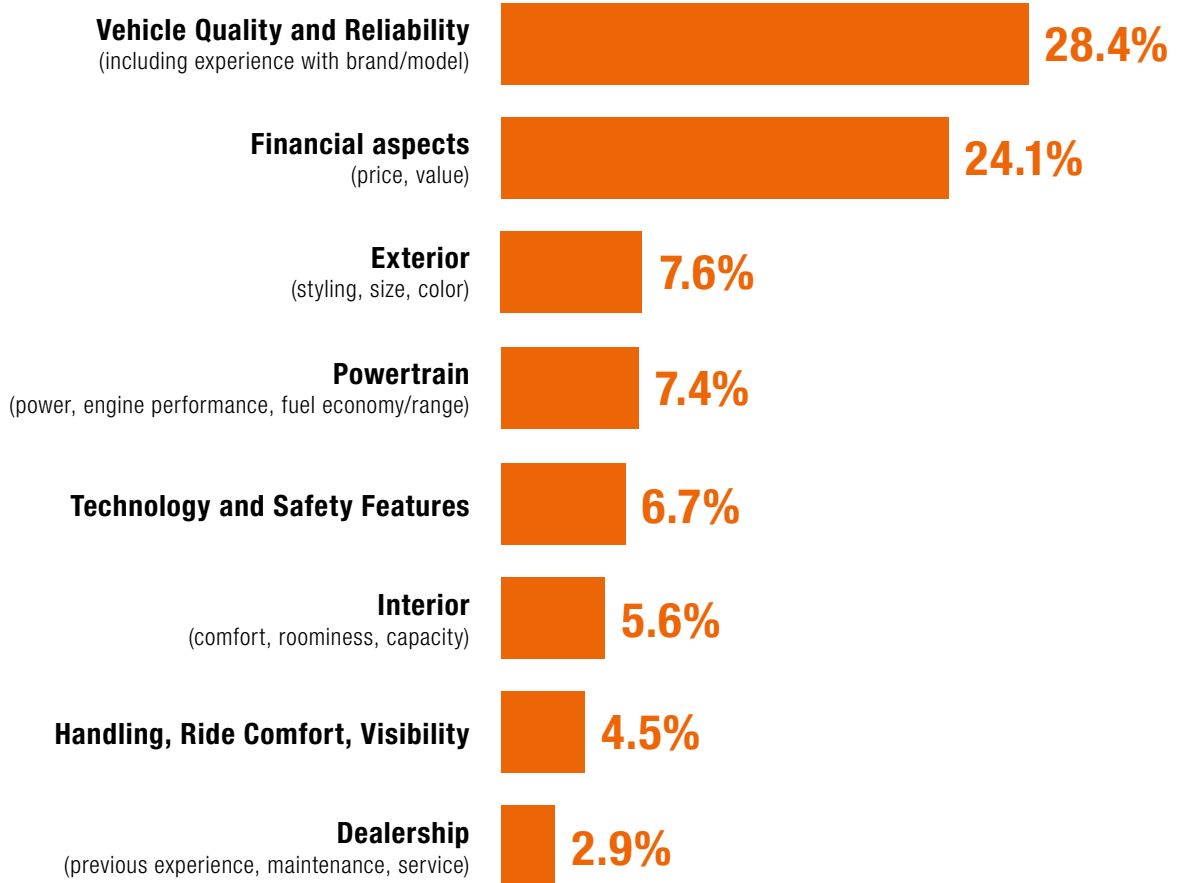
Automotive customers in US and Brazil

REASONS FOR PURCHASE

As previous problems can be a major defection reason for a customer's next purchase decision, the absence of problems, as well as perceived quality, reliability, durability can be a

top selling point. This shows us that whatever particular features a customer is looking for, quality is a big part of the picture.

Figure 6 Top reasons given for choosing a new vehicle



Automotive customers in US and Brazil

MEASURING THE IMPACT OF “THINGS GONE WRONG” ON CUSTOMER SATISFACTION

Quality is a basic expectation of customers when they purchase a new vehicle. However, the absence of problems alone does not directly translate to attitudinal loyalty. On the other hand, the existence of problems can – depending on its severity – lead to a drop-in customer advocacy and brand repurchase. Therefore, strategic analysis of problems with the greatest impact to satisfaction should take place, in addition to a focused analysis of the specific incidence. The impact upon satisfaction and repurchase is even more severe

in instances when the vehicle is unable to be driven due to a failure.

With this in mind, Ipsos has created an approach that indexes the level of satisfaction of each TGW, breaking it down into those who considered the problem annoying and people that were unable to drive their vehicle as a result. The more serious issues causing an inability to drive score higher. Figure 8 illustrates how this index works.

Figure 7 Things Gone Wrong index

	Paint	Rust and Corrosion	Locks, keys, remote control, central locking	Side Doors
Satisfaction	60.2	58.7	61.8	58.3
Unable to drive	0.0	0.0	0.4	0.0
“Annoying” problem	5.6	5.9	5.1	6.4
INDEX	54.7	52.8	56.3	51.9

An evaluation of the top 60 reported troubles yields different levels of severity and impact to satisfaction. Below are the highest severity problems in Brazil.



GEARBOX AND TRANSMISSION PROBLEMS



INTERIOR MATERIAL (CEILING AND DOOR PANELS)



WINDSCREEN AND REAR WINDOW



CLUTCH, INCLUDING CLUTCH PEDAL



ACCELERATOR (PEDAL, CABLE, ETC.)



OTHER BODY PANELS (UNDERNEATH THE CAR AND WINGS)



ABNORMAL FUEL CONSUMPTION



BUMPERS AND SPOILERS

Figure 8 The evolution of customer satisfaction vs. severity of TGWs

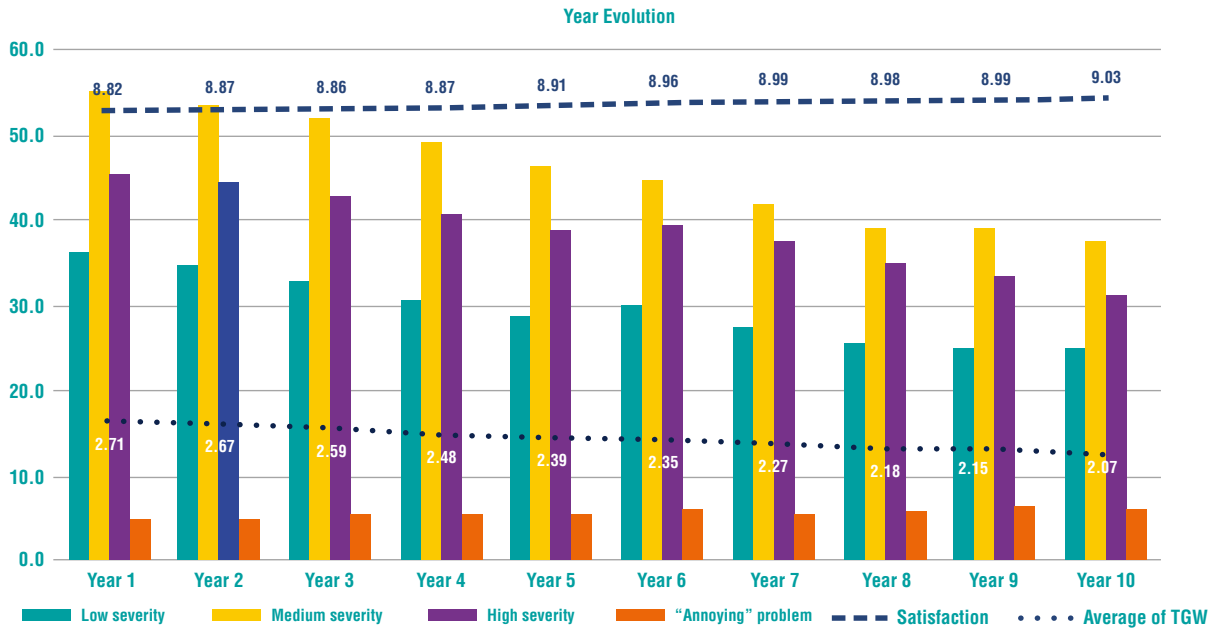


Figure 8 shows the evolution of a series of parameters applied to monitor and investigate the effects of troubles to a manufacturer's corporate satisfaction. While total Things Gone Wrong (TGW) have improved more than 20% over the past 10 years, the speed of satisfaction improvement follows at a slower pace, as efforts to improve quality focused on reducing incidence and the contribution of so-called "annoying" problems actually increased from 3.7% to 5.2% of total TGW.

In addition to analyzing problems based on return in satisfaction improvement, manufacturers should also input the cost that each repair represents, making it possible to estimate the financial impact of each TGW.

RECOMMENDATIONS AND CONCLUSIONS

Quantifying the link between quality initiatives and favorable business outcomes, such as loyalty, price premium and sales volume, will help Quality Managers to show the value of investing in quality tracking and maintaining quality metrics as a key performance indicator.

Prioritizing specific customer concerns that have a large impact on customer satisfaction allows the company to allocate resources most effectively by linking vehicle quality to business outcomes and assigning monetary value to resource initiatives.

QUANTIFYING



Quantifying the link between quality initiatives and favourable business outcomes (loyalty, price premium, sales volume, etc.) will help to show the value of investing in quality tracking and maintaining quality metrics as KPI.

PRIORITIZING



Analytical solutions can prioritise vehicle problem areas and attributes. An ROI model linking vehicle quality to outcome helps manufacturers to assign value to resource initiatives.

Improving quality should be a cornerstone of a company's strategic plan. Ipsos recommends that quality improvement strategy and initiatives be tightly linked to a quality feedback system. Customer feedback regarding their ownership experience constitutes an invaluable source of information. Companies can leverage this valuable information to develop

a set of metrics that strategically measure and quantify the company's perceived performance. Effective synthesis and insights provide a robust and highly operative system for making product and service improvements.

DRIVING QUALITY

Julia Hedrick

Senior Vice President, Global Head of Automotive Benchmarking and In-Market Studies, Ipsos

Thiago Graça Ramos

Senior Manager, Market Strategy & Understanding, Ipsos in Brazil

Bharath Vijayendra

Head of Analytics, Ipsos in the US

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