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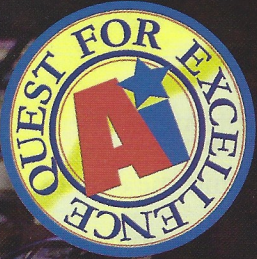
AUTOMOTIVE Industries

JUNE 2004

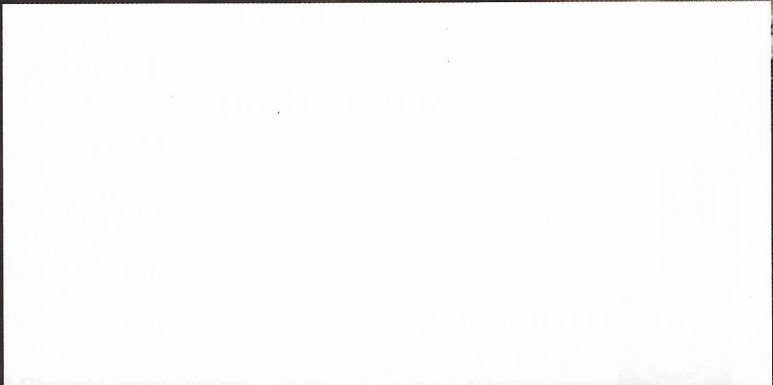
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THE POWER OF QUALITY

How one man and a survey changed
the way automobiles are built



- ★ 7th Annual Quest for Excellence
- ★ Toyota Manufacturing Moves Forward
- ★ '05 Mustang: Engineering an Icon
- Driving the Hybrid Escape



J. D. (Dave) Power:

“Mr. Quality”

■ While Power's quality, dependability and satisfaction surveys are the industry standards, some aspects are controversial. Power explains why they are what they are.

by Gary Witzenburg

Dave and Julie Power started this internationally known and respected business on their Los Angeles kitchen table in 1968. Prior to that — after graduating from College of the Holy Cross in 1953, serving four years on U.S. Coast Guard icebreakers in the Arctic and Antarctic and earning an MBA from the University of Pennsylvania's Wharton School of Finance — he worked in finance and marketing positions at Ford, Marplan, J. I. Case and McCulloch.

These assignments were generally challenging but unfulfilling. As a consultant (to GM's Buick and GMC Divisions) and later as an executive in marketing research, he found U. S. managers too often tending to question and “spin” the research until it told them what they wanted to hear instead of what they needed to learn. Unlike them, Power saw a pressing need to change, so he founded this new company to fill that need.

Detroit makers wouldn't give him any work at first, so his first automotive client became Toyota, which was re-entering the U.S. market after a disastrous initial attempt with a shoddy little car called Toyopet. Toyota has led Power's quality rankings pretty much ever since, partly because it designed its quality control system around his surveys.

“I heard that there was this Japanese company by the name of Toyota that was re-entering the market with a new Corona automobile that

was going to put them back on the map,” Power relates. “The perception of Japanese products in those days was tin and bamboo. They knew they had to do something differently, and they were able to open up their thinking. So I had an organization that was open to listen to the data, and this gave me a tremendous advantage. When I'd come in with a presentation, they didn't challenge the methodology or the way the questionnaire was designed or whether we had the right return rates. What they wanted was the information, and if they didn't have an answer on a specific question, they'd ask me to go back and do another survey.”

As Toyota began to prosper and grow, it hired U.S. staff from American makers, and some began looking at research in the old Detroit ways. So in 1971, Power started doing smaller independent studies on specific products. “The first one,” he says, “was on the Mazda rotary engine. Cash flow was a major problem in those days, so I had my wife tabulating the data at home. I'd bring home 30 or 35 questionnaires that I'd received that day and hand them to her, and she'd show me the tabulations up to that time. One night, she said, ‘Mazda has an O-ring problem.’ I said, ‘What's an O-ring?’ She said, ‘I don't know, but look at this.’”

In those early years, Julie Power tabulated consumer surveys on the kitchen table while also caring for their four young children. While she never had an official title, she actively participated in the company's development, working

closely with her husband on everything including major business decisions, until her untimely passing in 2002. “We owned the data since we funded it ourselves,” Power continues, “and we sold that report to 14 manufacturers. It was an eye opener for the industry to see that this highly touted rotary engine had this flaw that was going to cause them many problems. We tried to keep it within the industry, but somebody leaked it to the press. And that changed my life.”

“I got a call one morning from the *Wall Street Journal's* Detroit Bureau Chief, and I could tell that he knew about the study. I asked, ‘Where did you get this?’ He said, ‘We have our sources. I understand that they have an O-ring problem.’ I said, ‘Yes, but this is easily fixed if they put their attention to it, and it's not as severe as if they had an apex seal problem, which earlier rotary engines suffered from. I want to give you a balanced understanding of the problem, so I'd like to send you my press release.’ He said, ‘Well, you'd better get it to us right away.’ So after I hung up, I sat down with my yellow pad and pencil and wrote my first press release. Within 24 hours, it was in the *Wall Street Journal*, and within 48 to 72 hours, it was in every paper and magazine in the world.”

This was a huge blow to Mazda. “They denied that they had the problem,” Power says, “but we stood our ground with the findings. The press saw that what we said was going to happen did happen and that really helped our credibility. From that point on, the media has

been delivering our message to top management throughout the industry.”

Auto Research Still Leads

From its Westlake Village, Calif., headquarters, J. D. Power and Associates’ clients today include virtually every auto manufacturer in the U.S. market and many other companies in other industries around the world, and Chairman Dave speaks frequently to top managers and boards of directors worldwide. The firm’s renown and reputation has led to research and projects in a variety of industries including automotive, financial services, telecommunications, travel, home building, utilities and healthcare.

But J. D. Power remains best known for, and most closely associated with, its annual surveys of automotive quality, dependability and customer satisfaction. And while this data’s popularity with the press has led to international visibility and respect, it has also caused confusion among the media and, therefore, the public about what each Power survey actually measures and how its results should be interpreted.

Power’s most widely printed and quoted work is IQS (Initial Quality Survey), which covers just the first three months of new-vehicle ownership. Also done at the three-month mark are SSI (Sales Satisfaction Index) and APEAL (Automotive Performance, Execution and Layout). Next come CSI (Customer Service Index) surveys at one, two and three years following delivery. Then Power’s second best-known and most widely circulated product, VDS (Vehicle Dependability Survey), covers those first three years of service. There’s also a Dealer Attitude Study (DAS), a Customer Retention Study (CRS), tire studies, emerging technology studies, advanced powertrain studies, finance and insurance studies and many, many more.

Questions and Controversies

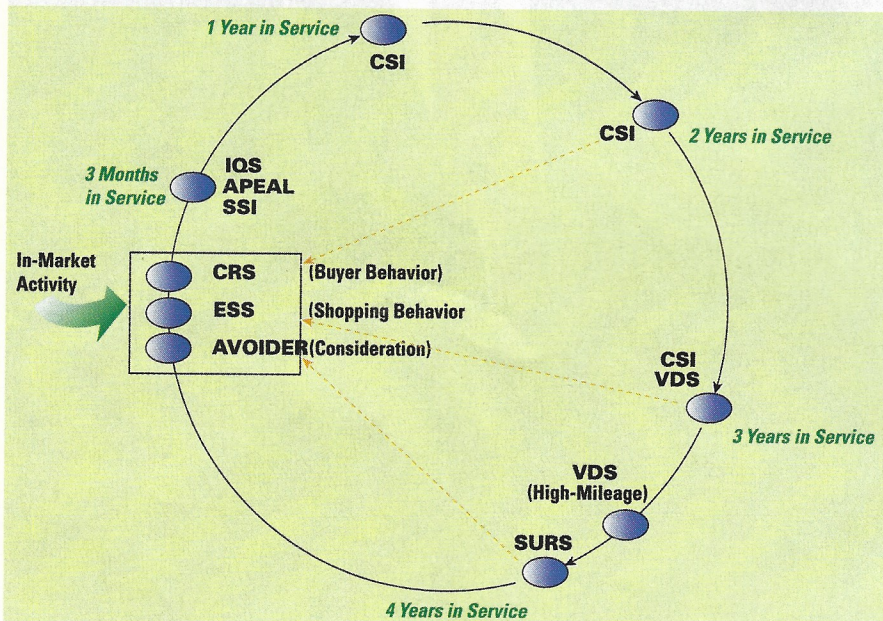
But most media understand only simple comparisons: Vehicle A beats Vehicle B; Company C beats Company D; and (meaningless and misleading these days), vehicles built by companies’ whose headquarters are in Country E are better than those from companies based in Country F. Thus we have the 2004 IQS headline-making revelations (based on 51,000 responses) that, while Japanese



J. D. (Dave) Power may be best known for his automotive surveys but the firm also does projects with a variety of clients in the financial services, telecommunications, travel, home building, utilities and healthcare industries.



J. D. Power (lower left with beard) and his staff celebrate Christmas in 1970 at the Wilshire Blvd., Los Angeles, Calif., office.



The many J. D. Power surveys include IQS (Initial Quality Survey) at 3 months, VDS (Vehicle Dependability Survey) at 3 years and CSIs (Customer Satisfaction Index) at 1, 2 and 3 years of service.

vehicles on average continue to lead. "Korean-branded vehicles outpace both European- and domestic-branded vehicles."

The folly of national-origin averages is that the companies and their vehicles are spread fairly evenly across Power's increasingly narrow IQS map, and in many cases the gaps between them are so small they're statistically insignificant. True, Korean-brand vehicles did improve tremendously on average in 2004. But

there are only two, and while one jumped to seventh among 37 U.S.-market brands, the other was 31st. True, the 11 Japanese brands averaged slightly better than the 10 Europeans and 13 domestics. But only two were in the top five, four were in the top 15, and the other six ranked 21st through 34th. Meanwhile, five U.S. and five European brands were above Power's IQS Industry Average, the rest below.

Also, the entire industry has gotten so

good in recent years that the rankings among brands, and gaps between them that used to be meaningful, are far less so today. For example, with the 2004 IQS Industry Average at 119 problems per 100 cars (PPI100), the five marques immediately below it (17th through 21st) are clustered between 120 and 123 PPI100, and the one in 17th place is 0.20 problems per vehicle behind the two tied for 5th. And does it make any sense to compare and rank the 14 auto companies operating in North America, as Power's data does, when half are single-brand makers, three (Honda, Nissan and VW) market only two brands, one (Toyota) sells three, and only three (GM, Ford and Chrysler) manage multiple brands in multiple price ranges including "captive imports" assembled all over the globe?

Power responds that such rankings and comparisons are provided because the press requests it; the deeper detail (some of which is available on the company's website) is too massive and complex for most to comprehend; and all of it is provided to clients (mostly automakers, dealers, suppliers) who are the primary customers. "Statistically," he says, "we're very representative, and the consistency of our data from year to year is outstanding. But the media was asking, 'How are the Japanese and Europeans doing against the domestics?' And if you look at our reports, the summary report alone is a three-inch binder. We're trying to present as fair a story as we can, but this study is done primarily for the benefit of the manufacturers. They're paying the freight, they get the whole bundle of information, and they can look at it any way they want and get more information out of it."

One other issue is the fact that IQS (and other Power surveys) don't differentiate between major and minor problems or between things that malfunction or break and things that simply dissatisfy. Engine and transmission failures equal wind noises, squeaks and rattles. Poor fuel economy equals poor fit. GM's Hummer, which is shaped like a cinder block and weighs three tons, occupies the '04 IQS basement (at 173 PPI100) largely because its thirst for gas was reported as a "problem" by owners who naively expected better. If this is a "quality" survey, as advertised, should it tabulate non-quality problems?

"My answer to that," Power asserts, "is, 'How do you define quality?' I think quality

Best of the Rest

■ **Consumer Reports and AutoPacific are both critically important to automakers and consumers alike.**

J. D. Power may be the established standard of auto consumer survey firms, but there are others that do similar, yet different, research. Best known is *Consumer Reports*, the Yonkers, NY-based Consumers Union's ad-phobic magazine, web site and product testing firm, which annually polls its combined five million subscribers to learn what troubles they've experienced. CR's auto reliability survey, covering eight model years and up to two vehicles per respondent, is sorted by year, make and model. The 2004 results, reported in the April issue, covers problems with 675,000 '96 through '04 privately owned or leased vehicles.

CR's "Problem Areas" are: Engine, Cooling, Fuel, Ignition, Transmission, Electrical, A/C, Suspension, Brakes, Exhaust, Paint/Trim/Rust, Body Integrity, Power Equipment and Body Hardware. The questionnaire instructs respondents to check a box under "Car 1" or "Car 2" if they have had any problems in the last year (April 1, 2002 through March 31, 2003) that they "considered SERIOUS (because of cost, failure, safety or downtime)," including problems covered by warranty but not accident damage. It further instructs not to include maintenance items "unless they were replaced much sooner or more often than expected."

Compared to Power's Vehicle Dependability Study (VDS), which polls owners of three-year-old vehicles, CR's survey has the advantage of its eight model-year breadth and a much larger sample size but the disadvantages of less depth and detail and the fact that it surveys its own subscribers rather than a scientifically random sample. And it plays a significant role in purchasing decisions: a 2003 Forrester Research, Inc. survey found that 33 percent of new-car buyers had consulted *Consumer Reports*.

"People literally walk into [dealerships] with *Consumer Reports* in their hands," says DCX Vice President, Corporate Quality, Steve Walukas. "You've got to have the whole package, all aspects of what they like and don't like, fuel economy, ride, handling, braking, safety, and you can't get recommended unless you have the reliability and durability."

Says CR Director of Automobile Testing David Champion, "I think Power does an excellent job, and I think we do an excellent job, and the

manufacturers use both." He points out that CR's survey also gauges owner satisfaction by asking four direct questions: "Would you definitely; probably; probably not; definitely not buy this vehicle again?" And to compare CR results to Power's VDS, he adds, "You can pull three-year-old vehicles out of our data."

Tustin, Calif., research firm AutoPacific publishes a variety of syndicated studies and conducts proprietary research and consulting for auto manufacturers, distributors, marketers and suppliers worldwide. Its eight year-old Vehicle Satisfaction Award (VSA) study establishes numerical satisfaction ratings for virtually every passenger vehicle in the North American market by calculating satisfaction across 44 specific areas related to operation, comfort, safety and the overall purchase experience. The 2004 VSA ratings, released this May, reflect input from more than 32,000 buyers and lessees of new vehicles acquired Sept.-Dec., 2003.

Another AP survey, the Satisfaction Benchmark Study (SBS), analyzes North American market cars and trucks on a feature-by-feature basis. "We feel SBS is the best and most economical way for manufacturers and suppliers to rate their own performance and find out who is setting the standard for satisfaction," says AutoPacific President George Peterson. "It takes the analysis to the discrete level, from cupholders to the dealership experience."

Each of these — J. D. Power, *Consumer Reports*, AutoPacific and a few others — including each manufacturer's internal research and warranty analysis — measures different things in different ways, and each has real value in helping consumers make comparison and automakers learn where they're good, where they need improvement and how they stack up to competitors. Confusingly, though, some companies and brands do very well in some and worse in others. That is why it's so important for media and the public to understand what each one measures and how. And why automakers need to make the effort and do the right things consistently, year after year, to improve their QRD performance in every way across the board.

— Gary Witzenburg

talks about the entire vehicle ownership experience, and we're letting the customers be the judges of what they put down as problems. We give them a list of all the components that are easily identified and have them check off anything with which they have a problem. Then we give them an option at the end to write in anything else that might be a problem. Yes, indeed, anything that is perceived as a problem by the respondent, we calculate on the same rating, so an engine problem and a windshield wiper problem will get counted the same."

Like them, question them, believe them or not, Power's surveys over their 36 years have

become cornerstones of media and public perceptions and aggressive drivers of quality improvement industry-wide. Every automaker today works extra hard from design through validation, development, assembly, delivery and beyond to assure annual improvement in its Power report cards. DCX Quality Vice President Steve Walukas speaks for the majority of makers when he tells us, "We have to continue to improve. We want to break away from the pack we're in and compete with the best. That's what we're going to continue to work on."

A few years ago, one domestic marque not then known for quality managed a surprising

fourth-place finish in that year's IQS. Its PR and ad teams fashioned releases and ads showing that lone domestic brand proudly positioned among the vaunted top few. Then columnist George Will cruelly deflated their bubble with a scathing column asking, "Why would anyone brag about finishing fourth?" Yet it was a significant and important accomplishment. If your college basketball team gets to the NCAA Tournament Final Four, then loses, is it a failure?

"I'm very proud of what we've accomplished by pushing the quality story," Power says when asked about his role in the process. And he should be. ★