

QUALITY MANAGEMENT 444

**WEEK 5
LECTURE 10**

Chapter 25 - Organizationwide Assessment of Quality

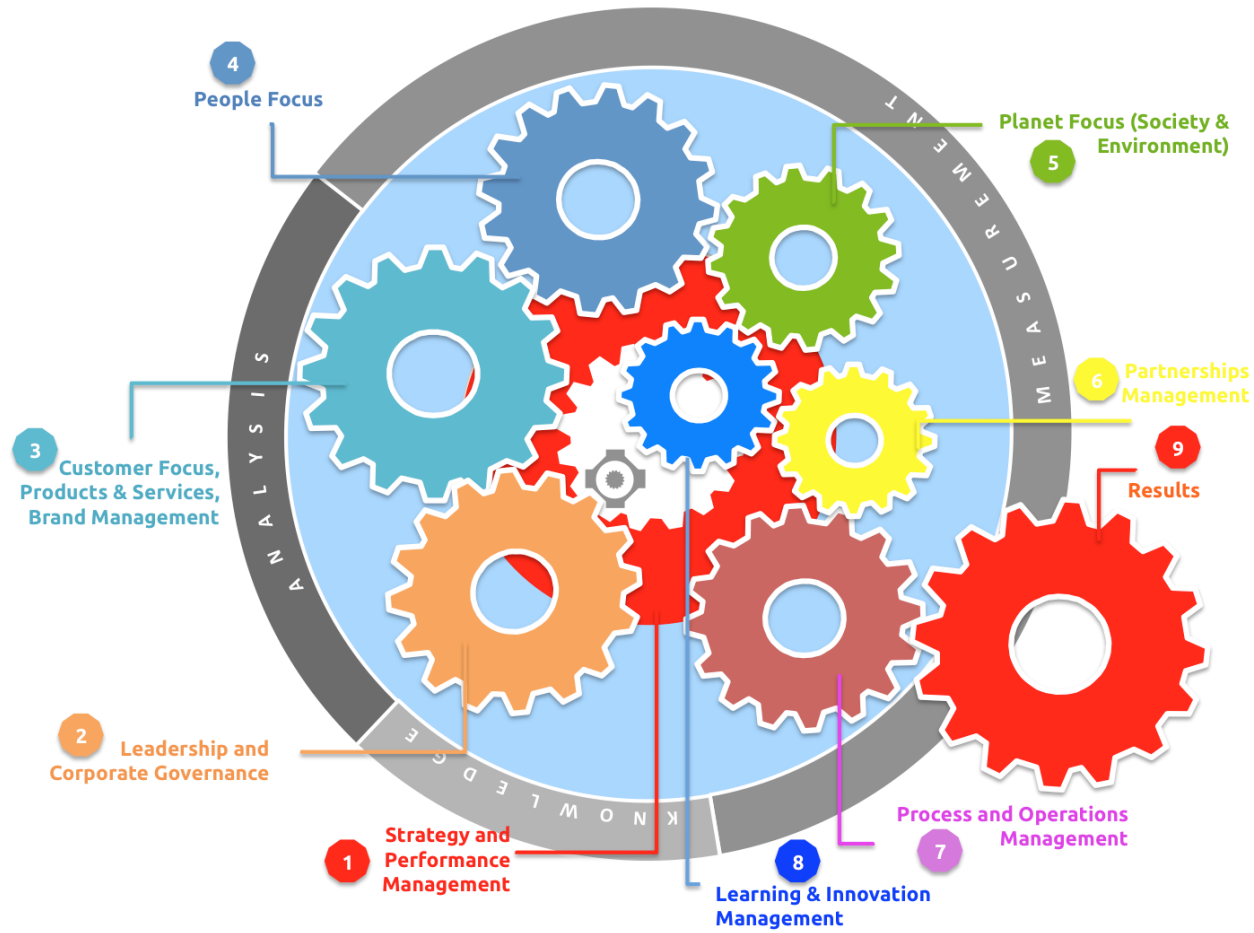
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Why (organisation-wide) assess (quality) performance?





Why assess (quality) performance?



- ⊙ Understand the baseline of your culture, system, processes, people and cost
- ⊙ Understand what needs to be changed or improved

Many organizational assessments that can be used. Six examples:

- ⊙ Quality risk
- ⊙ Cost of poor quality
- ⊙ Performance and standing in the marketplace
- ⊙ Assessing using national performance standards and awards
- ⊙ Assessing to the international system standards
- ⊙ Competitive benchmarking best practices



Why organization-wide assessment?



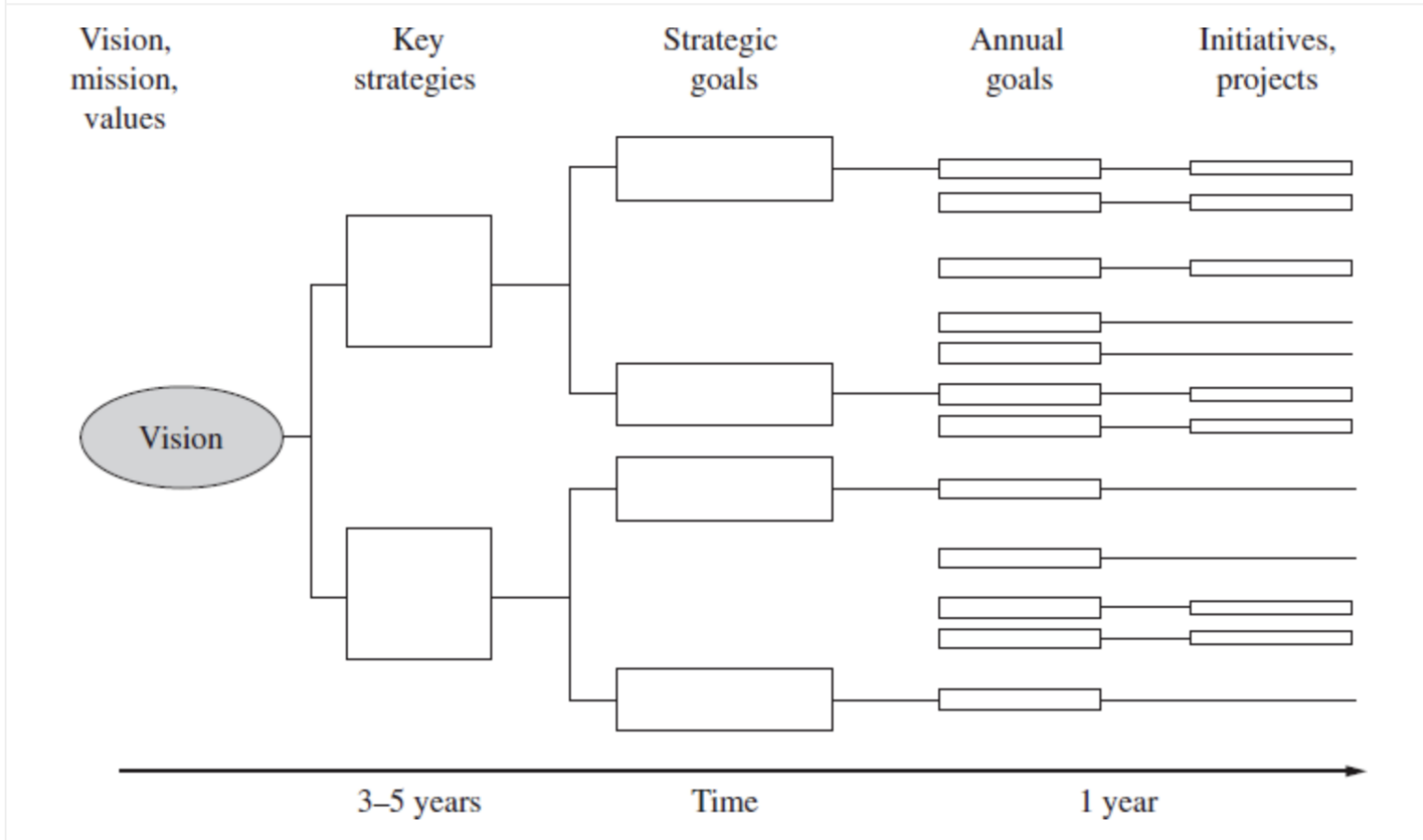
- ⦿ Systems perspective
- ⦿ Internal and external customers
- ⦿ Avoid displacing problems
- ⦿ The whole is bigger than the sum of its parts
- ⦿ You'll find the problem wherever you go looking for it



Strategic alignment, deployment and assessment



Figure 25.4 Deploying the vision. (Juran Institute Inc., Southbury, CT.)





Assessment elements



- ⌘ **COST OF POOR QUALITY (COPQ)**
- ⌘ **STANDING IN THE MARKETPLACE**
- ⌘ **EMPLOYEE CULTURE**
- ⌘ **OVERALL HEALTH OF THE OPERATING AND QUALITY SYSTEMS**



Plan the assessment



- ⌘ **Aim / what to plan for: organization-side assessment in sufficient detail to meet the needs of the overall quality assessment**

Planning requires that the organization:

- ⦿ Define the team.
- ⦿ Define objectives.
- ⦿ Define scope and criteria.
- ⦿ Establish a communication plan between the team and leadership.
- ⦿ Complete the pre-assessment



Plan the assessment



Table 25.1 Juran's Organization Health Check Scoring Guide

Categories and Items (Point Values)
1. Strategic alignment and deployment (100) 1.1 Strategic planning (30) 1.2 Strategic deployment (45) 1.3 Stakeholder (executive point of view) (15) 1.4 Key support systems (10)
2. Quality management system (100) 2.1 Quality system (40) 2.2 Quality control (10) 2.3 Continuous improvement (50)
3. Measurement and analysis capabilities (75) 3.1 Measurement systems (25) 3.2 Customer relationship and requirements (25) 3.3 Competitors (5) 3.4 Product and service quality (5) 3.5 Support processes (5)
4. Effectiveness and efficiency of business processes (100) 4.1 Core business processes (30) 4.2 Voice of the customer (20) 4.3 Product and service creation (20) 4.4 Service and order fulfillment (10) 4.5 Key support processes (10) 4.6 Process efficiency and cost (10)
5. Employee engagement and culture (100) 5.1 Human resource structure (30) 5.2 Talent development (40) 5.3 Culture (30)
6. Supplier management (75) 6.1 Supply chain policy (25) 6.2 Supplier procedures (50)
7. Scorecard and results (450) 7.1 Customer (80) 7.2 Product and service (80) 7.3 Culture (80) 7.4 Supplier performance (80) 7.5 Financial results (130)
Total points = 1,000



Assessment elements



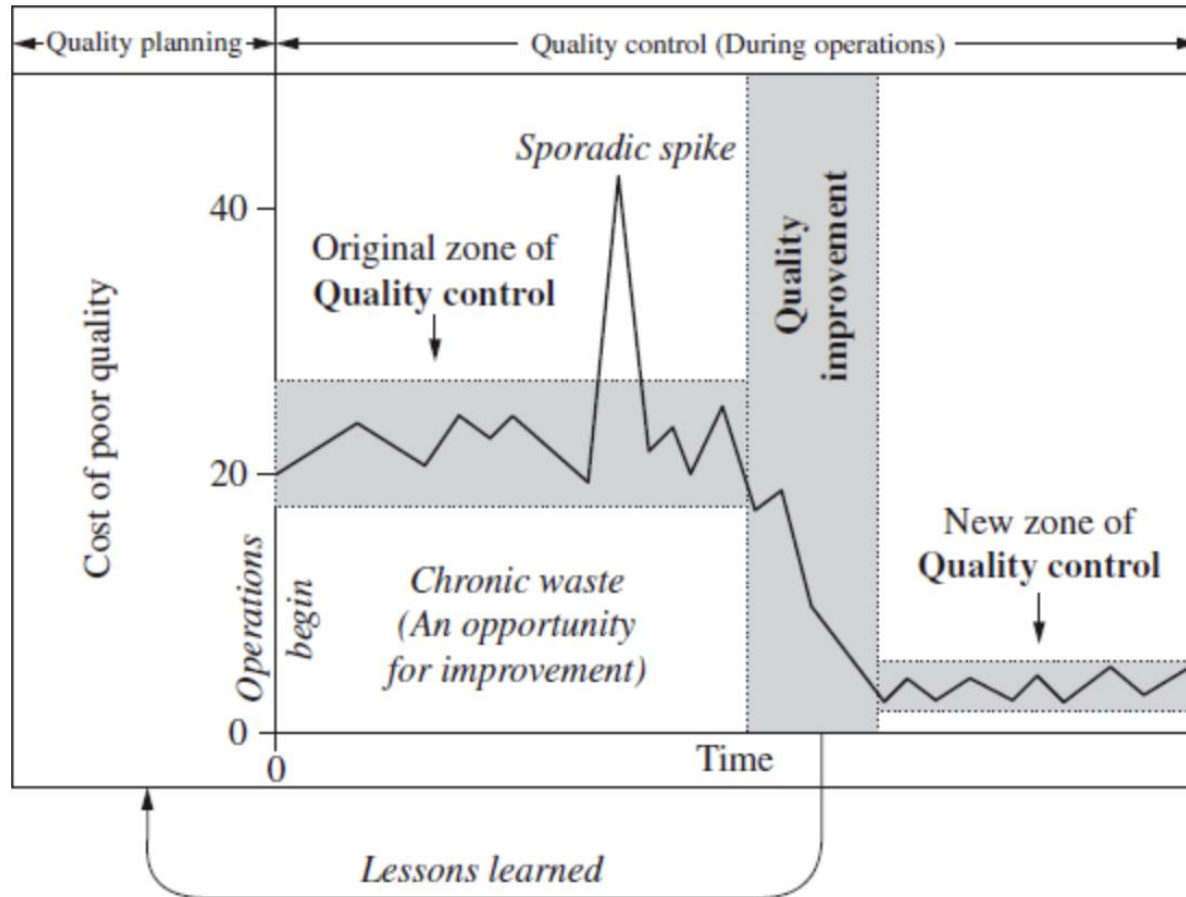
- ⌘ **COST OF POOR QUALITY (COPQ)**
- ⌘ **STANDING IN THE MARKETPLACE**
- ⌘ **EMPLOYEE CULTURE**
- ⌘ **OVERALL HEALTH OF THE OPERATING AND QUALITY SYSTEMS**



Universal principles for managing for quality: Juran's trilogy



Figure 1.1 Juran Trilogy.





Cost of poor quality



- ⌘ **It is the annual monetary loss of products and processes that are not achieving their quality objectives**

- ⌘ **Cost of poorly performing processes**

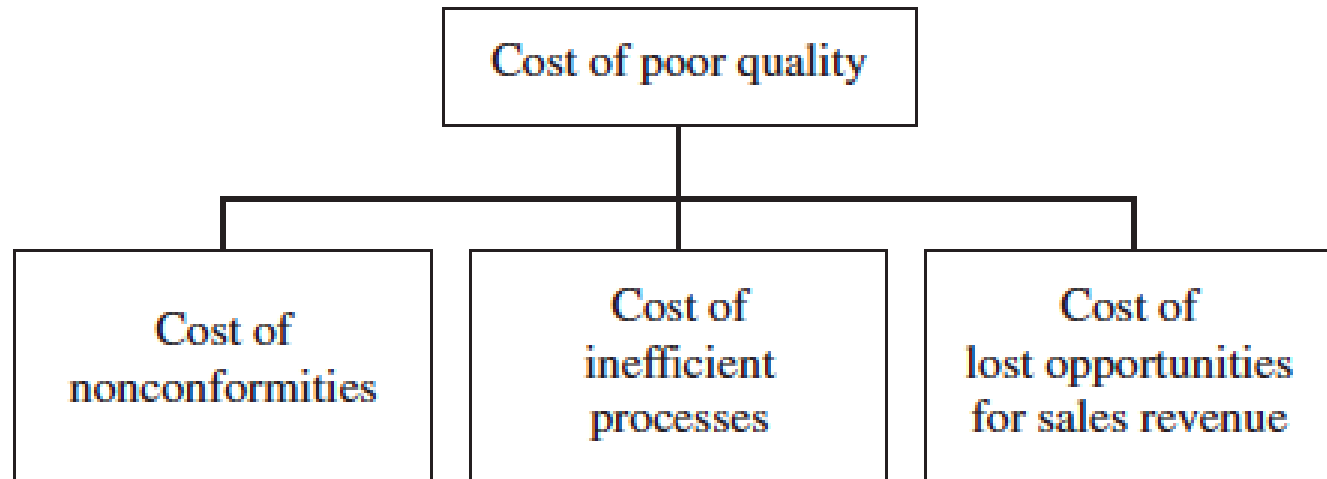
- ⌘ **Why would you want to calculate the COPQ?**
 - ⦿ **Quantify the size of the quality problem in monetary value (a way of communicating?)**
 - ⦿ **Identify opportunities for cost reduction**
 - ⦿ **Opportunities for reducing customer dissatisfaction and associated threats to product salability can be identified**
 - ⦿ **Provides a means of evaluating the progress of quality improvement initiatives**
 - ⦿ **Supports the development of a strategic plan**



Cost of poor quality



Figure 25.5 Cost of poor quality.





Cost of poor quality



PREVENTION COSTS

The cost incurred in the process to reduce potential defects and errors (quality improvement costs, quality training, planning).

APPRAISAL COSTS

The cost of determining the current quality of the production process or service. (inspection costs).

INTERNAL FAILURE COSTS

The cost incurred when defects and errors are found before delivery to the customer.

EXTERNAL FAILURE COSTS

The cost of trying to correct defects and errors after the product or service is delivered to the customer.

Spending on appraisal & prevention vs cost of poor quality / failure costs

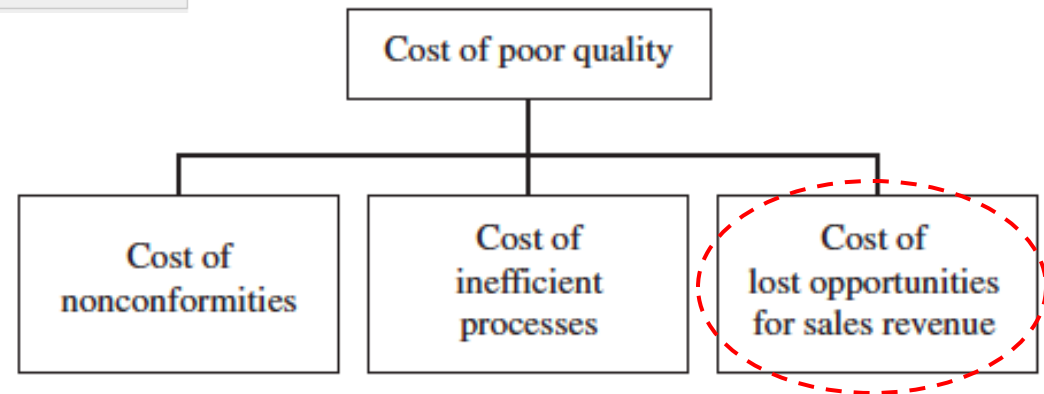


Categories of quality costs



Table 25.3 Revenue Lost Through Poor Quality

\$10,000,000	Annual customer service revenue
1,000	Number of customers
× 25%	Percent dissatisfied
250	Number of dissatisfied
× 75%	Percent of switchers (60–90% of dissatisfied)
188	Number of switchers
× \$10,000	Average revenue per customer
\$1,880,000	Revenue lost through poor quality
Source: The University of Tampa.	





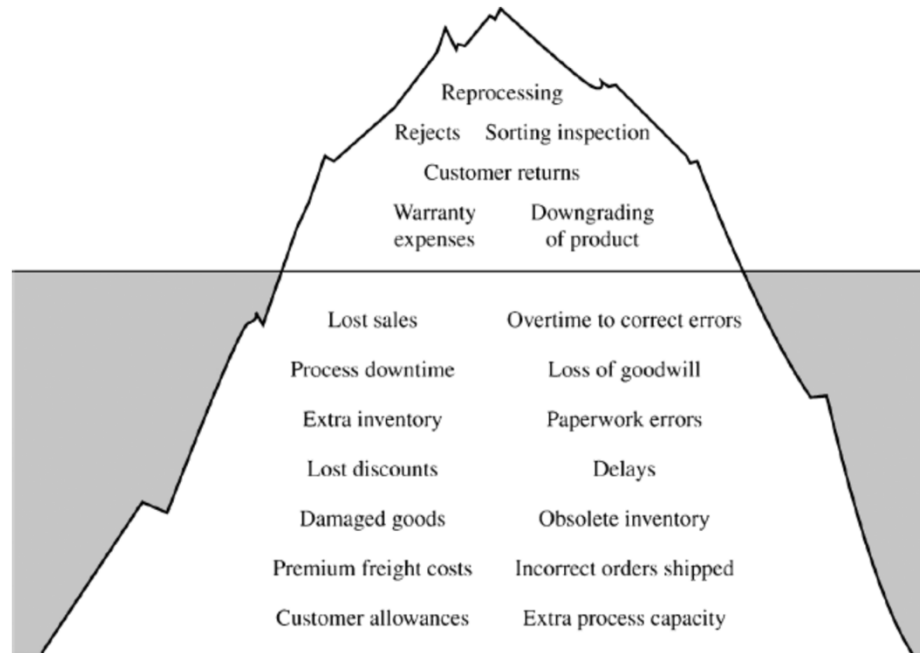
Categories of quality costs



⊙ Hidden costs

⊙ Quantification of non-events

Figure 25.6 Hidden costs of poor quality.





Relating COPQ to business measures



Relating COPQ to business measures



⦿ Languages of management / communicating the challenges

Table 25.4 Languages of Management

Money (annual cost of poor quality)
24% of sales revenue
15% of manufacturing cost
13 cents per share of common stock
\$7.5 million per year for scrap and rework compared to a profit of \$1.5 million per year
\$176 million per year
40% of the operating cost of a department
Other languages
The equivalent of one plant in the company making 100% defective work all year
32% of engineering resources spent in finding and correcting design weaknesses
25% of manufacturing capacity devoted to correcting quality problems
13% of sales orders canceled
70% of inventory carried attributed to poor quality levels
25% of manufacturing personnel assigned to correcting quality problems



Recalls: COPQ



Ford recalled more than 1.5 million Pintos in 1978 due to the faulty position of fuel tanks. In some cases, the fuel tank burst into flames after a rear-end collisions. At least 27 people died as a result.



About 35 years ago, Johnson & Johnson recalled more than 20 million bottles of Tylenol capsules after someone laced the painkillers with cyanide and put them in store shelves in the Chicago area. Seven people were killed.



About 6.5 million Firestone tires were recalled in 2000 because the tires could shred, blow out or fail. Most of the tires were used in Ford SUVs and light pickup trucks



COPQ



SOME OF OUR CANS ARE NOT WORTHY OF OUR NAME.

Tiger Brands recalls **SOME** KOO and Hugo's defective cans due to a side weld seam issue that may cause the cans to leak. All products listed below manufactured from 1 May 2019 to 5 May 2021 are affected.



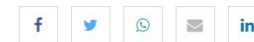
Recall of pilchards at Shoprite, Checkers: 'Bloated' cans could make consumers sick

Business Insider SA
Feb 23, 2020, 05:10 PM



South Africa's 320,000 driver's licence backlog is hurting car sales

Staff Writer 19 November 2020



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The National Automobile Dealers' Association (NADA) says that extensive administrative delays in document turnaround times and vital operational systems are drastically impacting motor vehicle sales in South Africa.



Recalls: COPQ



“Tylenol’s market share almost fully recovered in a year.”



Assessment elements



- ⌘ COST OF POOR QUALITY (COPQ)
- ⌘ **STANDING IN THE MARKETPLACE**
- ⌘ EMPLOYEE CULTURE
- ⌘ OVERALL HEALTH OF THE OPERATING AND QUALITY SYSTEMS



QUALITY?

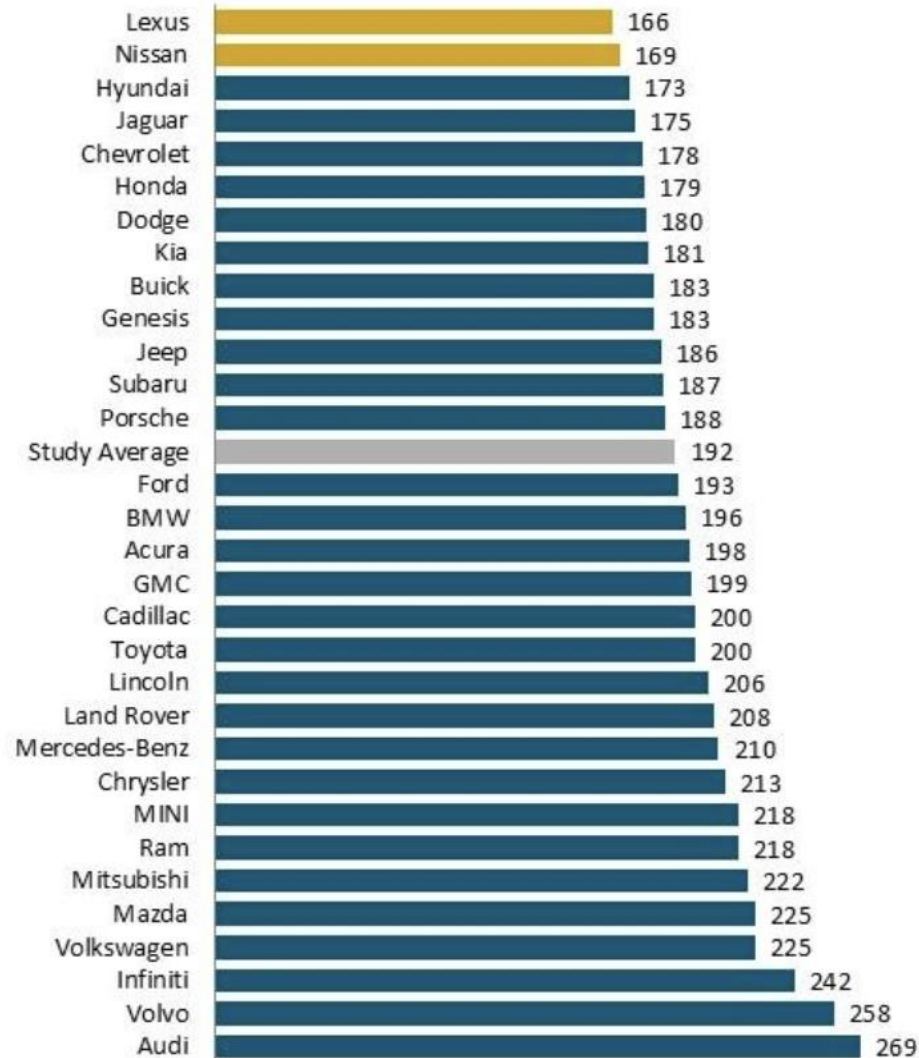




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Brand Ranking

Problems per 100 Vehicles (PP100)

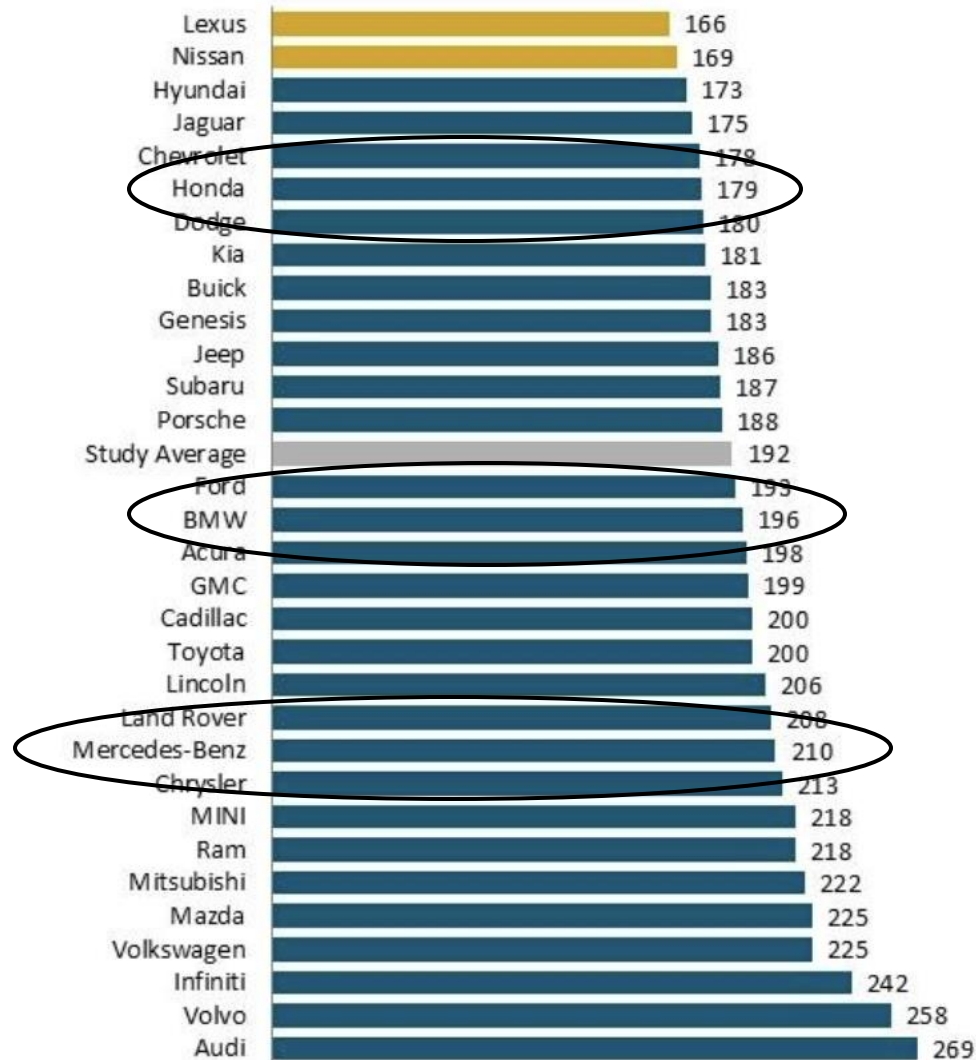




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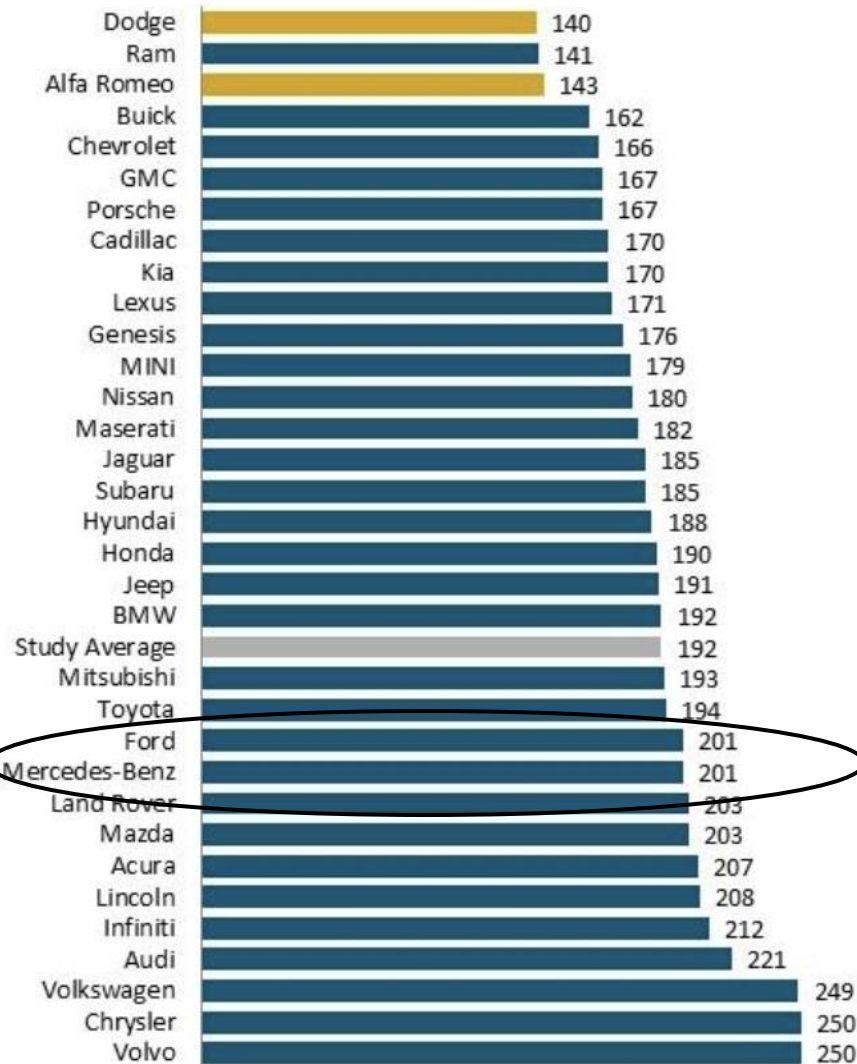
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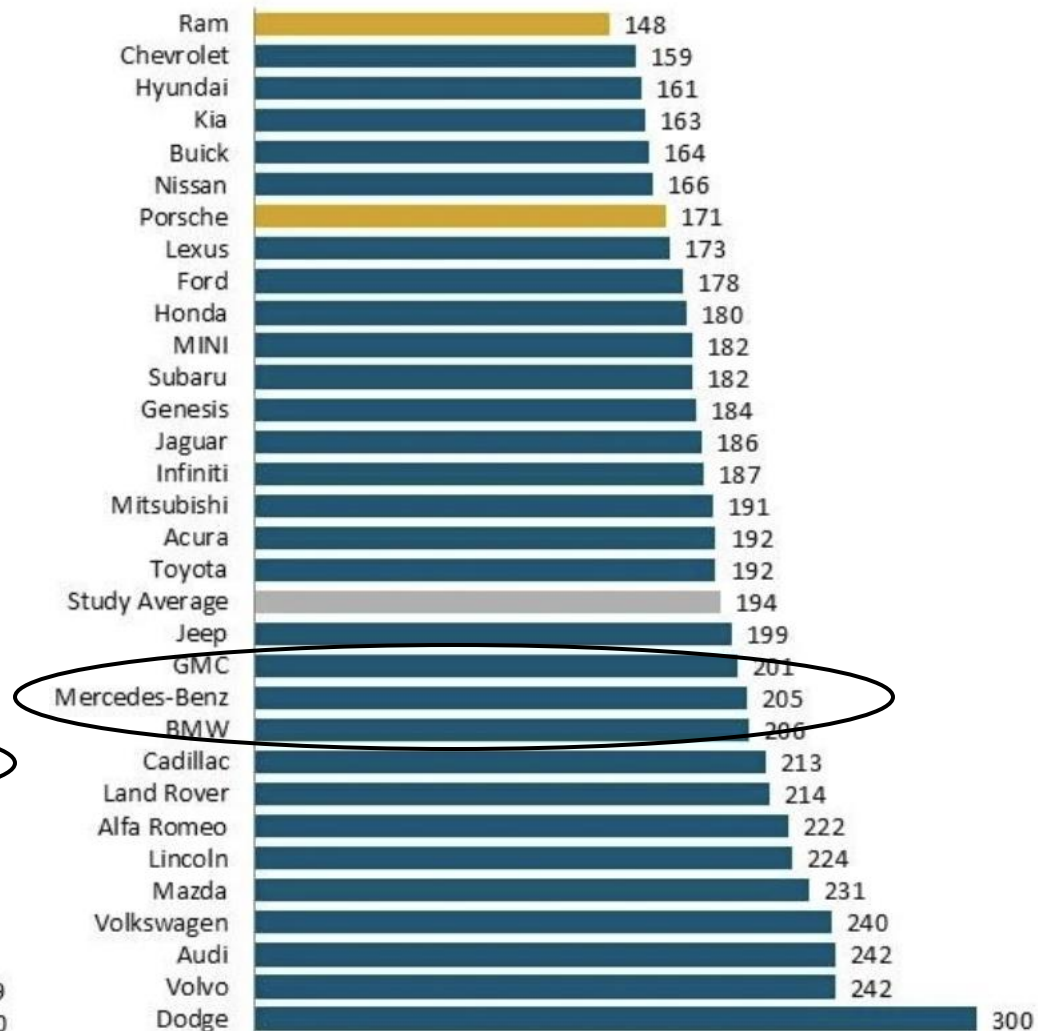
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Brand Ranking

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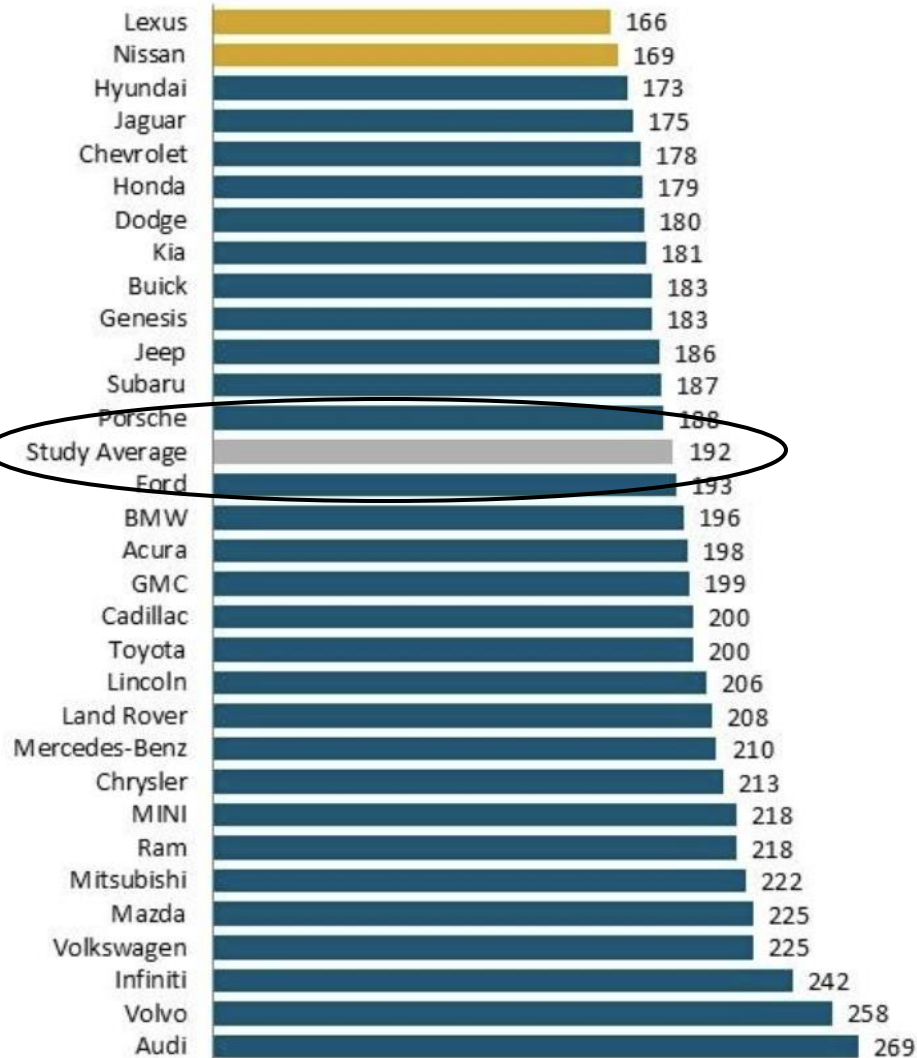




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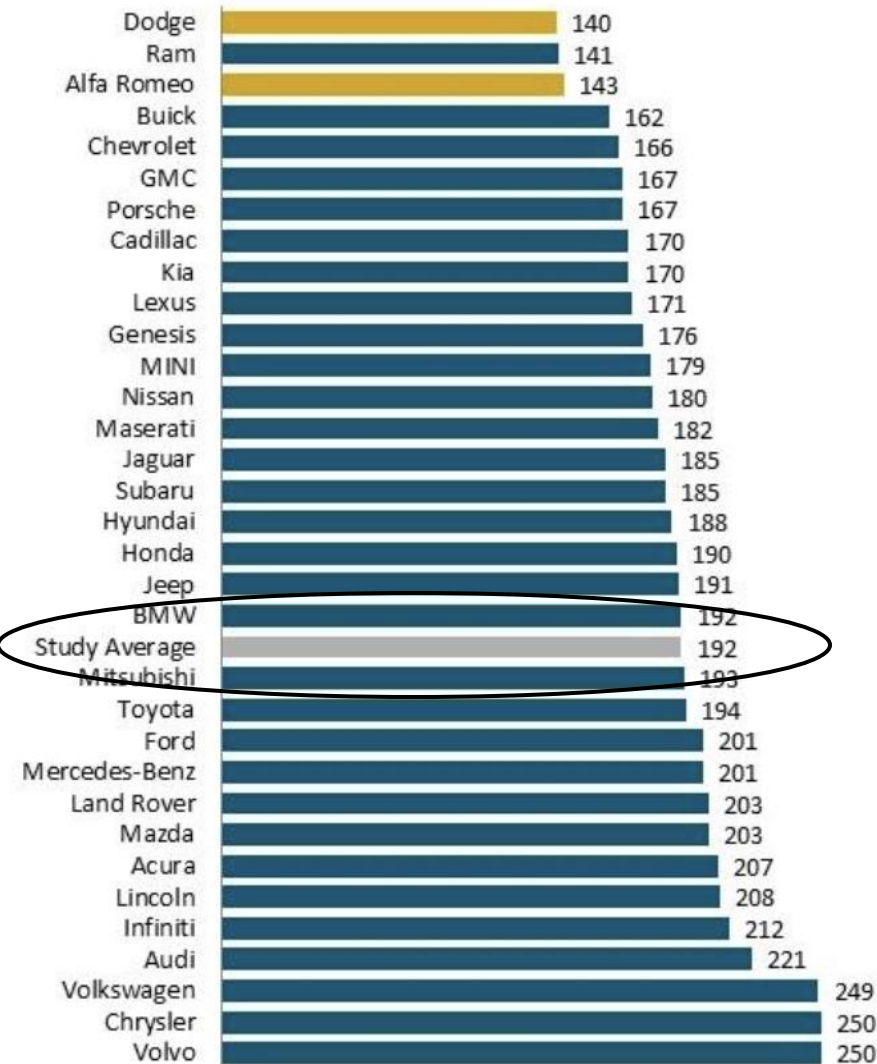
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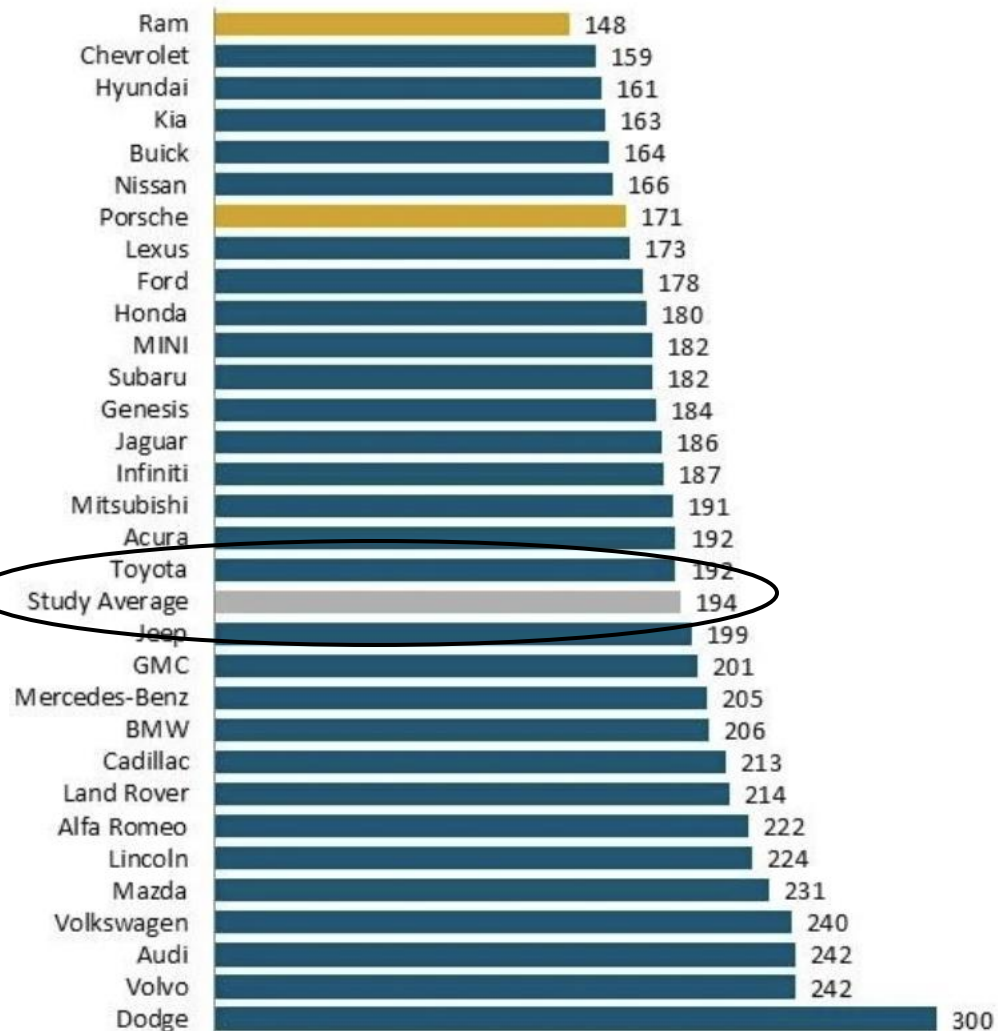
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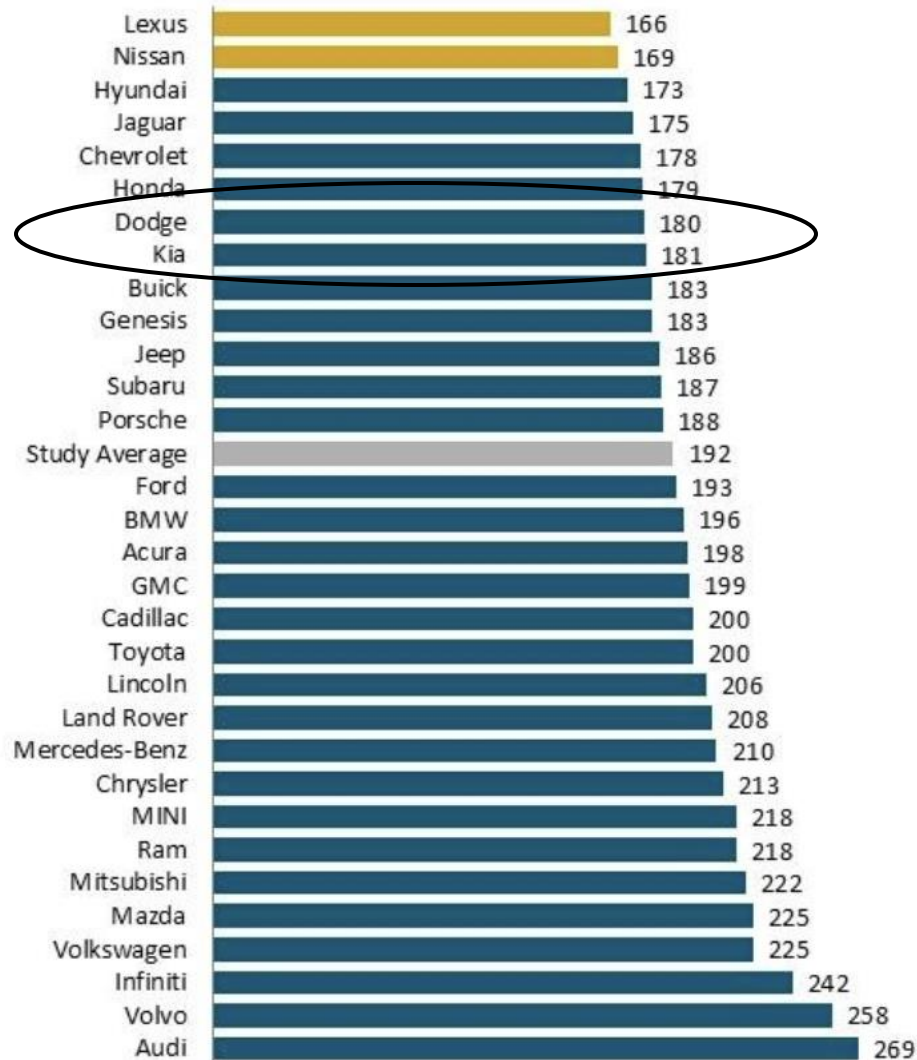




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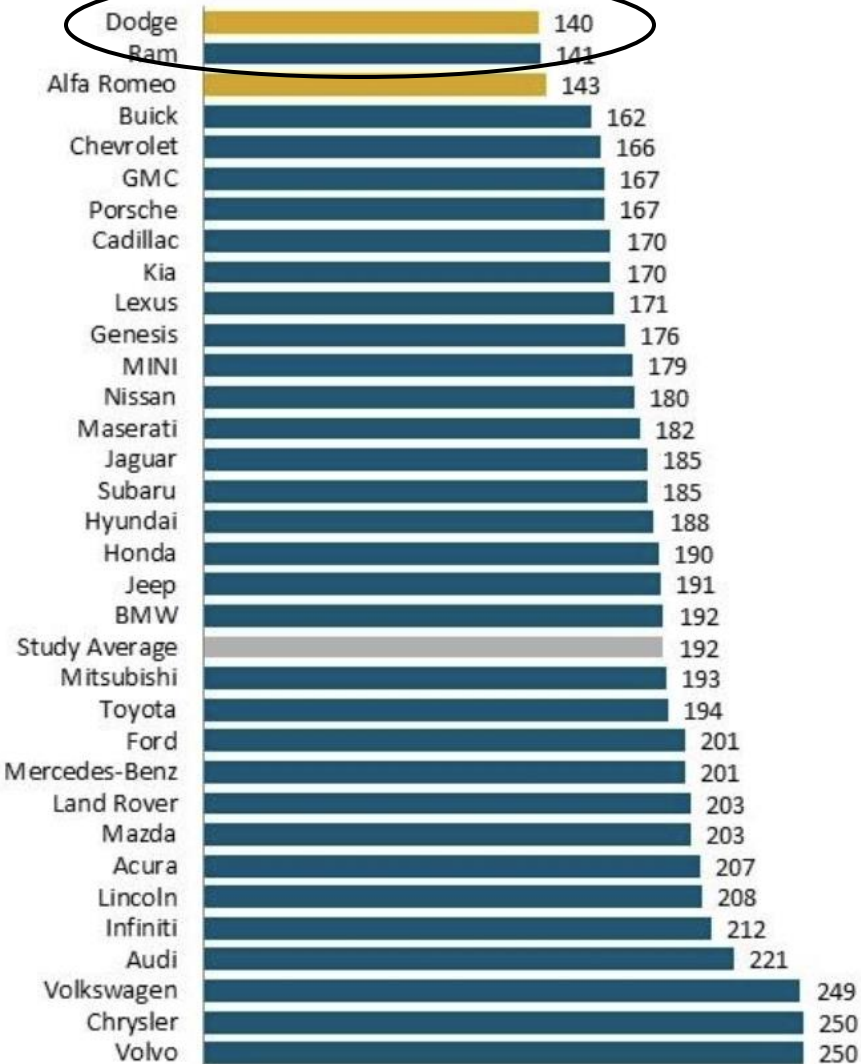
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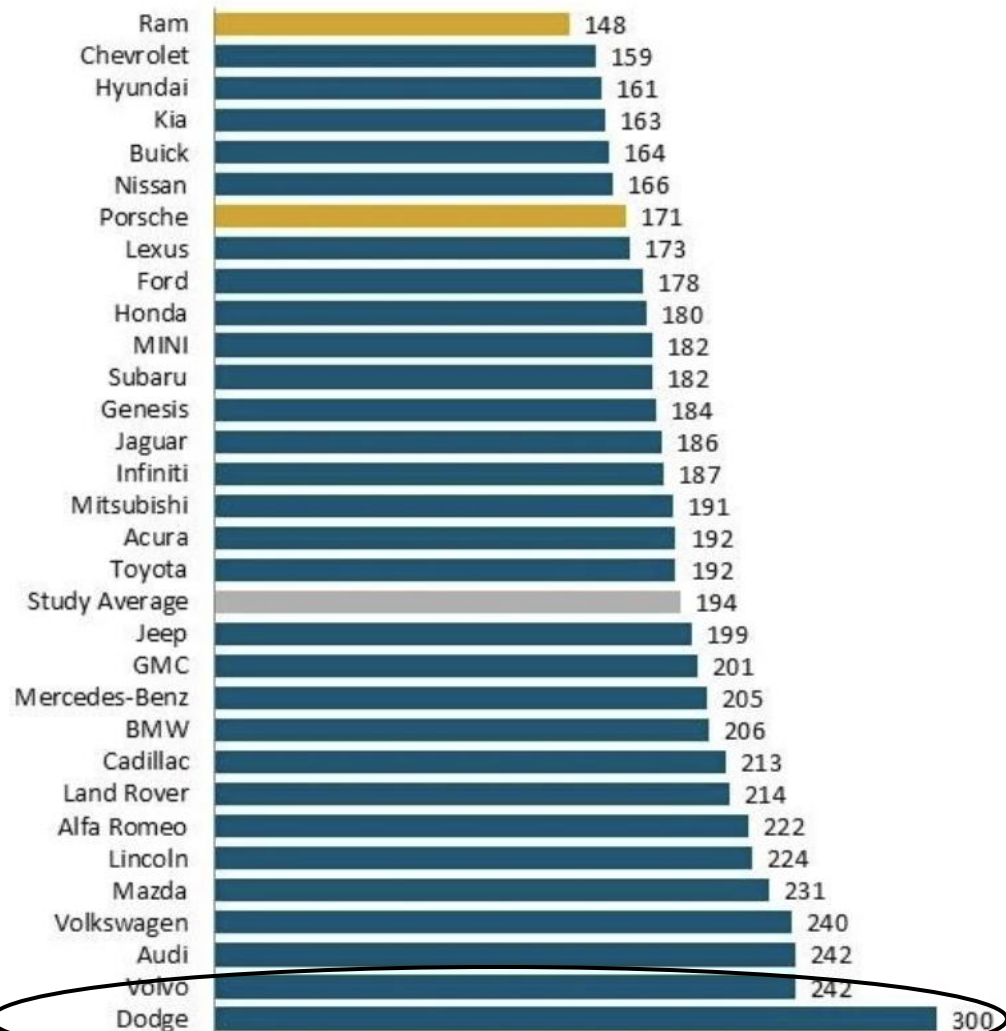
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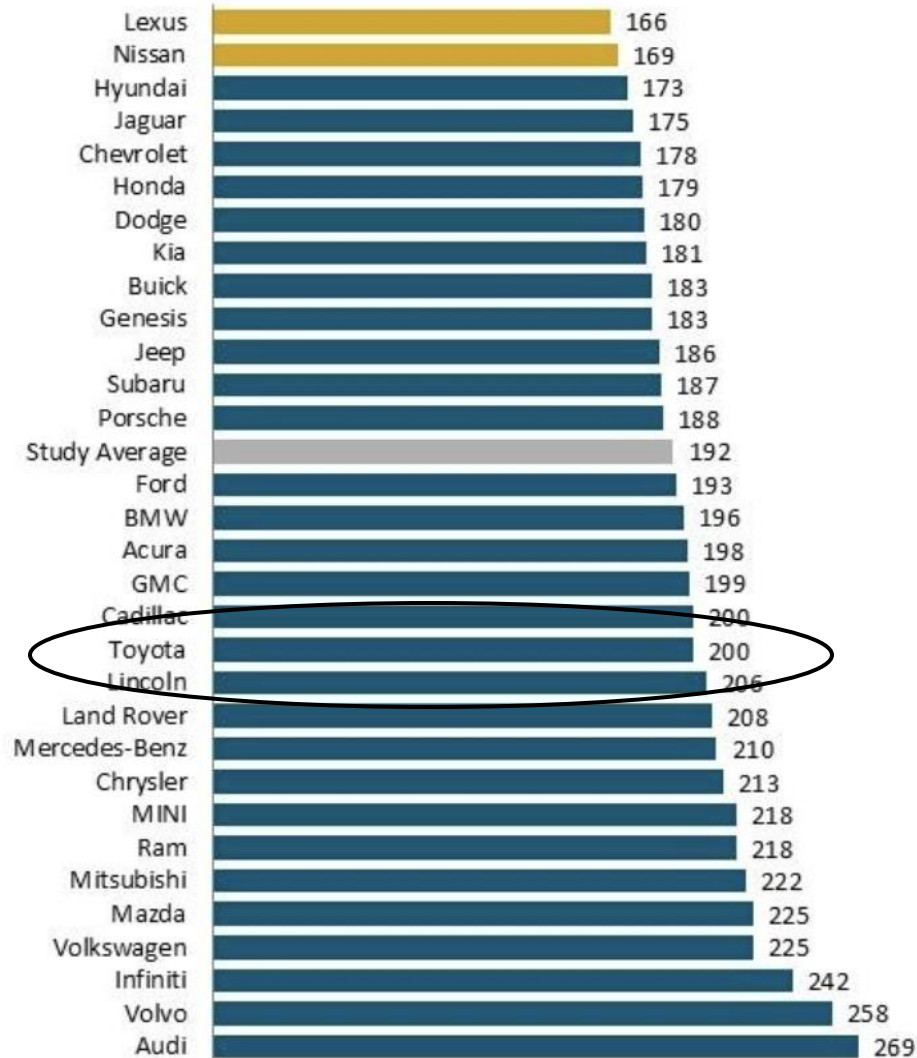




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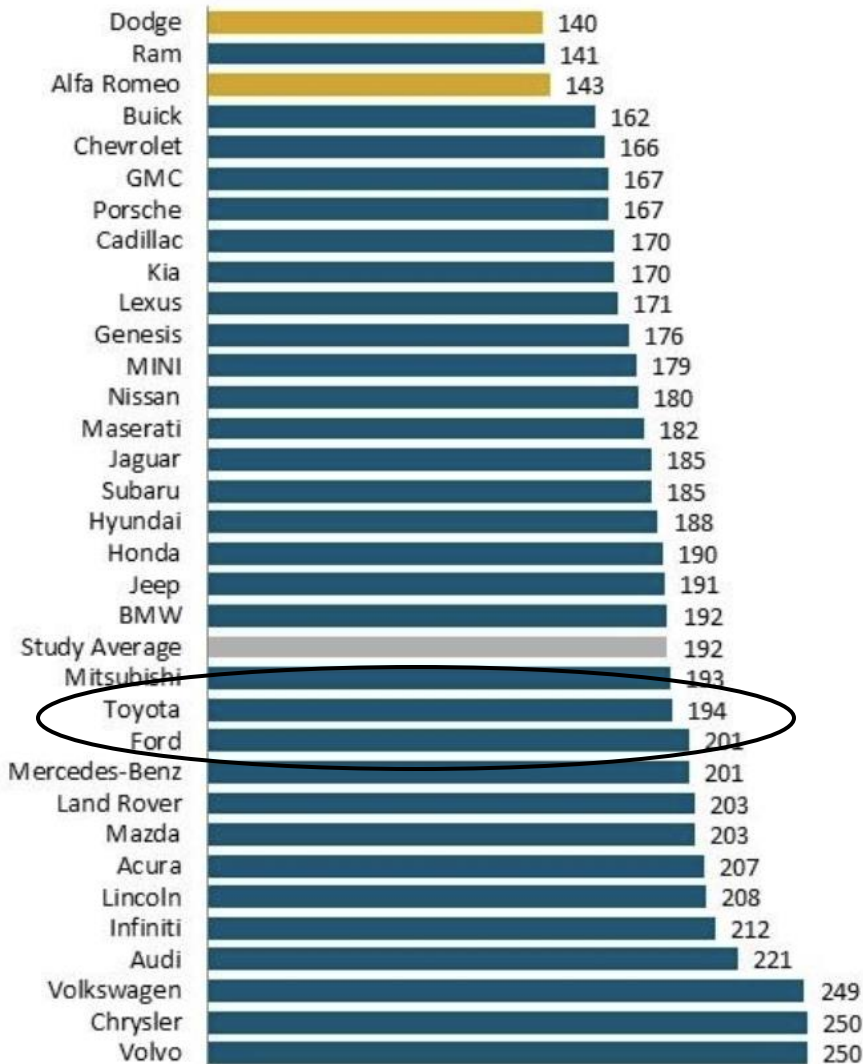
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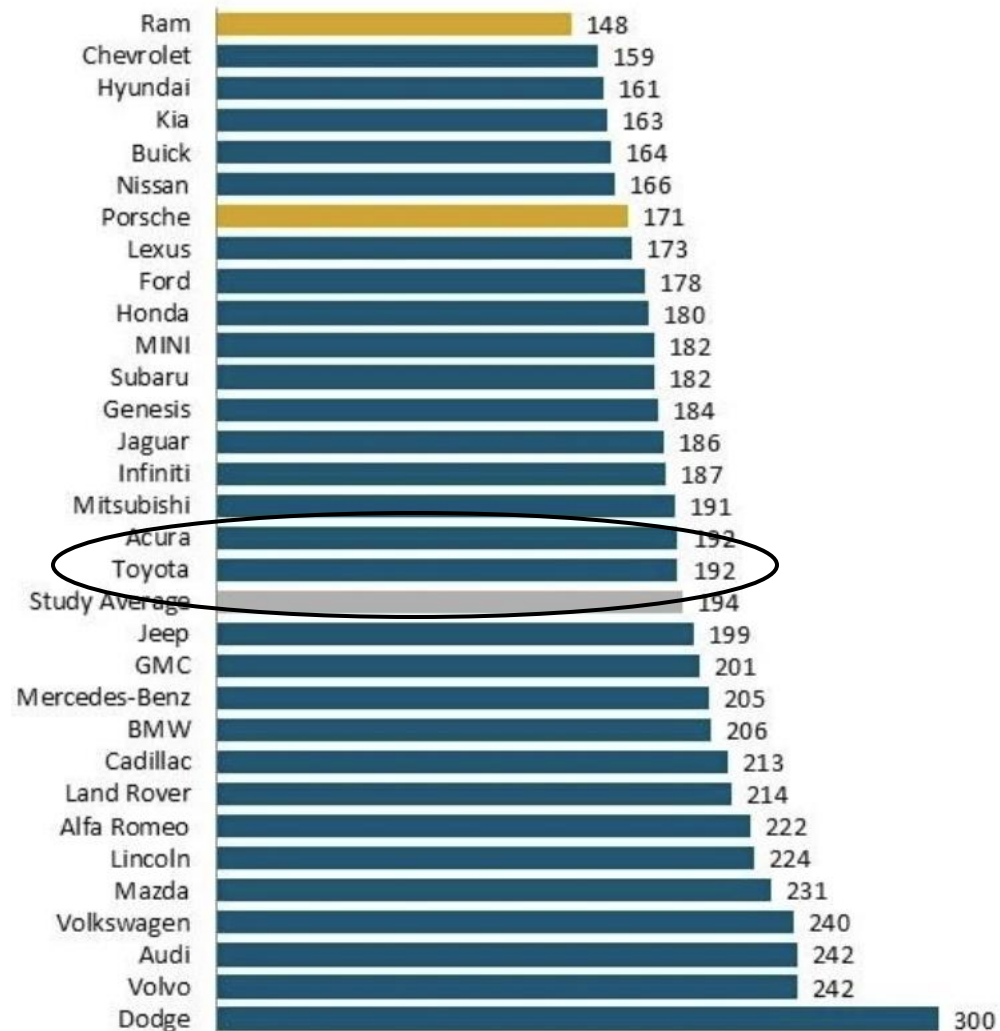
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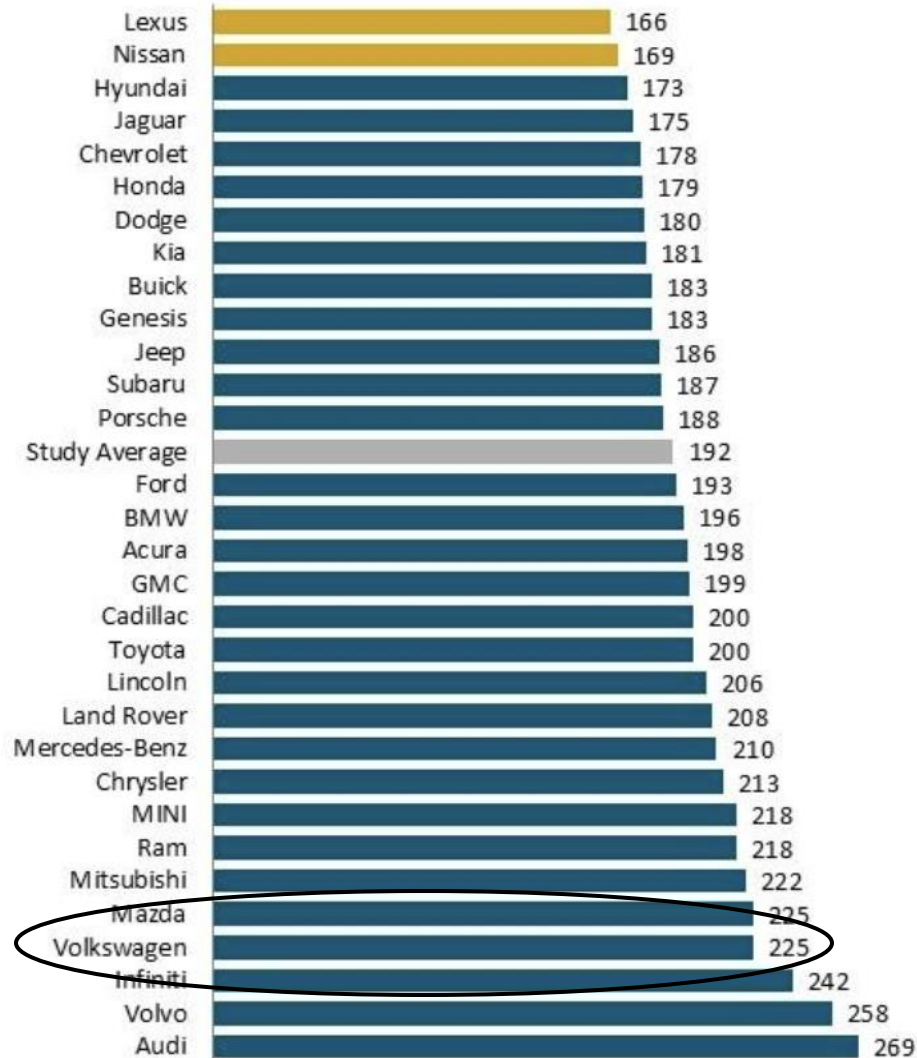




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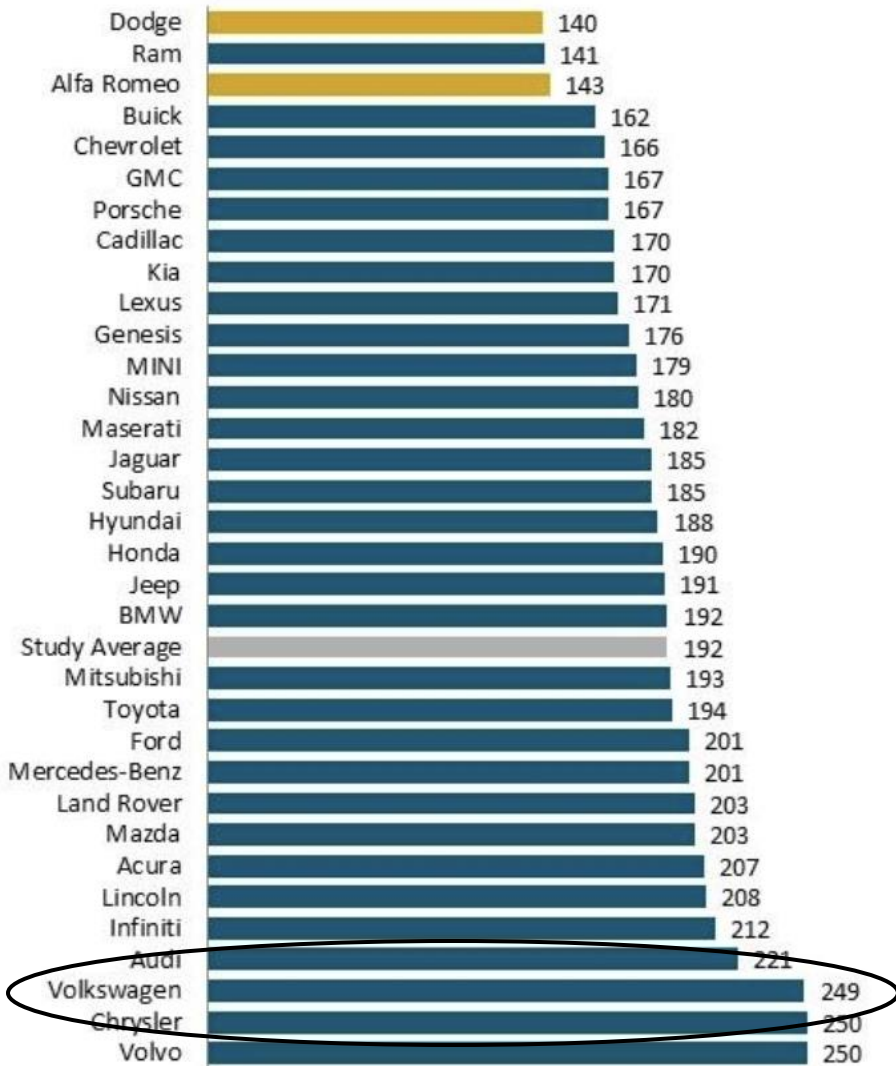
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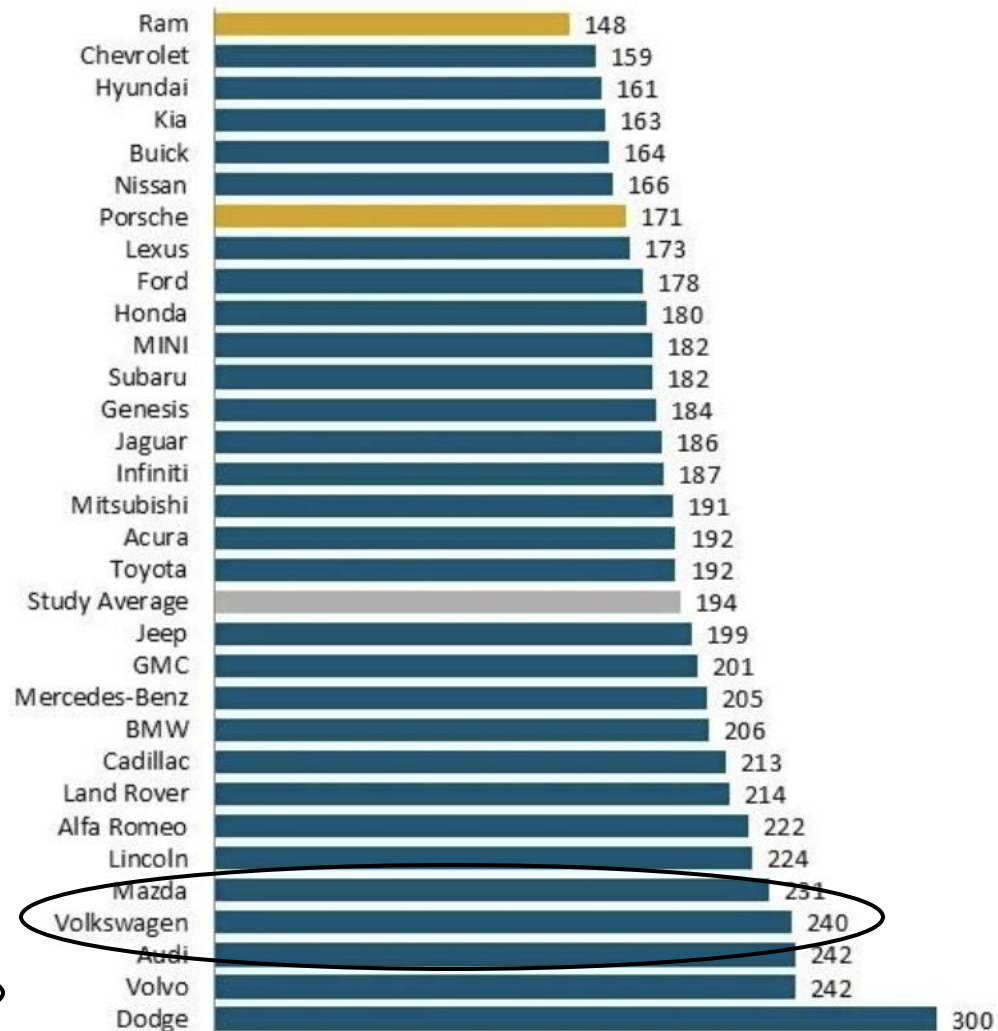
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Brand Ranking

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Standing in the marketplace



- ⦿ **Gives a snapshot of standing relative to competition**
- ⦿ **Identifies opportunities and threats**
- ⦿ **Market research studies**



Assessment tools & techniques



- ◎ National performance standards and awards
 - ✓ Malcolm Baldrige National Quality Award
 - ✓ ISO Standards
 - ✓ Regulatory standards (FDA or Sarbanes-Oxley)
 - ✓ EFQM Excellence Model
 - ✓ Benchmarking



Importance of good quality



Good quality leads to higher customer satisfaction and is rewarded with increased profits





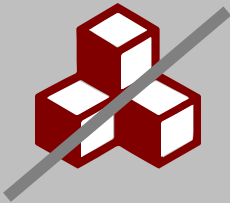
Consequences of poor quality



Products of poor quality may disappoint the buyer and lead to product failure

LOSS OF BUSINESS

The customer will not buy the product or any other product again.



LOSS OF REPUTATION

Customers complain about their bad experience to friends and relatives.



HIGHER COSTS

Poor quality costs money and reduces profitability. (Cost of poor quality)

