

Orngrove
Autos

CAR RECOMMENDATION

A PERFECT CHOICE FOR A LIFE AND FAMILY EXPERIENCE



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SCENARIO

Sue intends to buy a vehicle. She has a list of ten potential vehicles available for purchase. She has expressed certain criteria that are important in her decision. Using the vehicle data and Sue's priorities, provide one or more recommendations (with justification) on which vehicle best suits her needs. Sue intends to buy a vehicle. She has a list of ten potential vehicles available for purchase. She has expressed certain criteria that are important in her decision. Using the vehicle data and Sue's priorities, provide one or more recommendations (with justification) on which vehicle best suits her needs.

PROBLEM PARAMETERS

- Sue belongs to a family of three, and also has a dog.
- This will be the family's primary mode of transportation.
- Sue intends to own the vehicle until the odometer reads 250,000km.
- Fuel efficiency is a factor, as Sue expects roughly 25,000km of annual driving.
- Storage space is important due to long-distance visits to family, camping trips, etc.
- Sue considers the vehicle's safety rating of utmost importance and the total cost of owning and operating the vehicle as her second most important factor in the decision.

ASSUMPTIONS

- Group all of Sue's parameters into four different categories: Safety Rating (5pts), Cost of Maintenance/Ownership(4pts), Odometer(2pts) and Storage & Space(3pts).
- Safety Rating and Price are the 2 most important parameters. Datapoints\Weights refer to Safety Rating, Price, and the 2 Fuel Efficiency numbers. (5, 2, and 1 point each respectively)
- Sue intends to own the vehicle until the odometer reads 250,000km (This is about Kms. 2 Points)
- Sue belongs to a family of three, and also has a dog (Space/storage). It's a small family. Data points talking about space/storage are Front Leg Room & Rear Leg Room (0.5 point each)) and cargo volume seat up(1.5 points) and wheelbase 0.5.
- Sue expects roughly 25,000km of annual driving (Cost of ownership / Maintenance of the car). Data Points referring to this are Highway Fuel Efficiency and City Fuel Efficiency (1 point each))
- All the parameters are scaled down to a weight of 5 with the two(2) most Important parameters: Cost of Ownership and Safety taking 4 and 5 respectively.
- Scaling was done with respect to the approximate value of the Maximum value of the parameter being considered. e.g Max value of Car Price is \$19,998, however, \$20,000 was used.

ANALYSIS APPROACH

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THE PROBLEM
Sue intends to buy a Vehicle, provide one or more recommendations on which vehicle best suits her needs

PREP AND CLEAN THE DATA
Get clarity on the Dataset, create relationships and explanatory analysis using PowerBI

DEEP DIVE
Prepare the data and analyse different contributing factor to Sue's final decision.

RECOMMENDATION
Based on analysis of each parameter, the most suitable car for Sue is Honda CRV 2013

INSIGHT
Results are presented in a dynamic Dashboard using PowerBI to show how the different parameters affect her final decision .

OVERVIEW

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Number of Vehicles

2012 - 2015

Model Years

\$11999 - \$19998

Price Range(\$)

30900 - 64546

Odometer Ranges(Kms)

Vehicle Makes

Toyota

3

Ford

2

Kia

2

Honda

1

Mazda

1

Nissan

1

Vehicle Details

Sum of Price

Sum of Kms

Vehicle Details	Sum of Price	Sum of Kms
Toyota RAV4 LE 2013	\$19,998	35944
Ford Edge SEL 2013	\$19,995	57891
Honda CRV 2013	\$19,995	44665
Mazda CX-5 2014	\$18,900	64546
Toyota Prius 2012	\$18,000	56065
Nissan Rogue 2013	\$16,000	40000
Kia Soul EX 2015	\$15,995	30900
Toyota Matrix 2013	\$14,995	44160
Kia Rondo 2014	\$12,884	45536
Ford Focus 2014	\$11,999	47197

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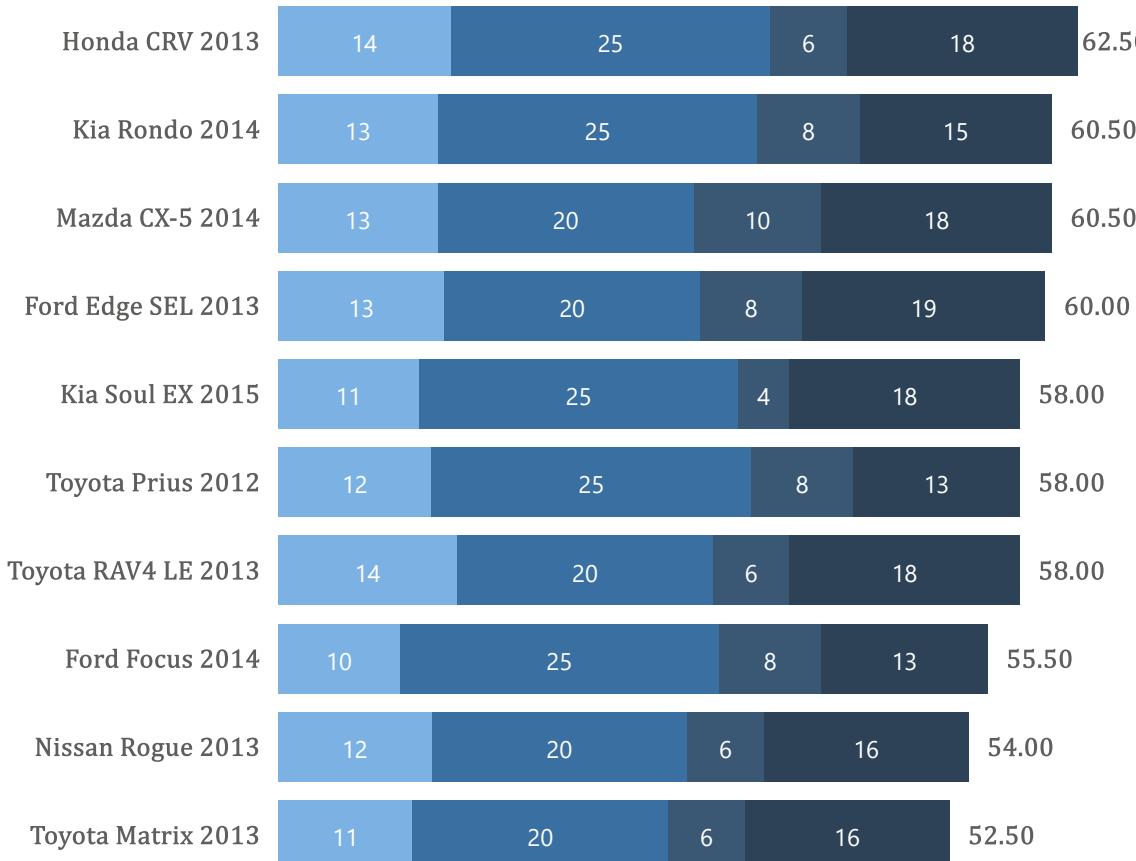
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Final Score by Vehicle Details and Criteria

● Storage ● Safety ● Odometer ● Cost of ownership / maintenance



Assigned Weight and Available Score

Criteria	Sum of Weight	Sum of Available Score
■ Safety	5	25.00
■ Cost of ownership / maintenance	4	20.00
■ Storage	5	15.00
■ Odometer	2	10.00

KPI Grouping

KPI	Criteria
City Fuel Efficiency	Cost of ownership / maintenance
Highway Fuel Efficiency	Cost of ownership / maintenance
Price	Cost of ownership / maintenance
Kms	Odometer
Safety Rating	Safety
Cargo Volume	Storage
Front Leg Room	Storage
Rear Leg Room	Storage
Wheel Base	Storage

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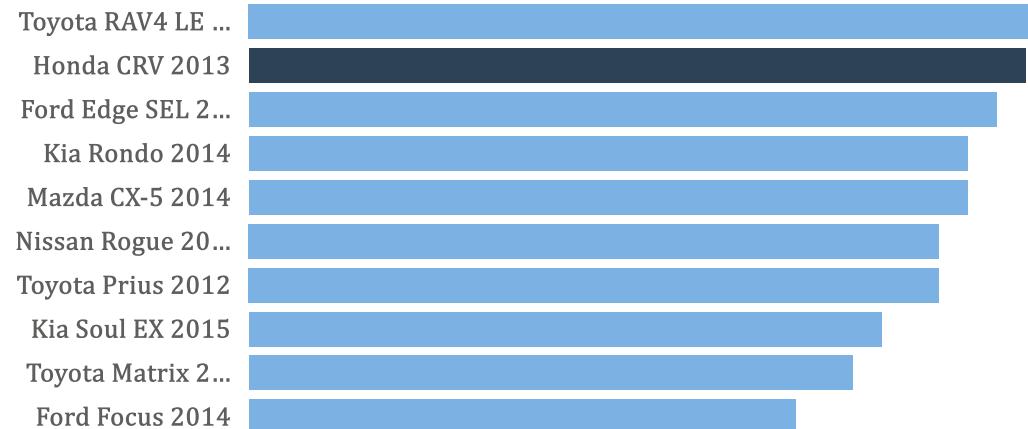
Ranking by Safety



Ranking by Cost of Ownership and Maintenance



Ranking by Storage Space



Ranking by Odometer

