Vanderbilt-Nissan Transformer Model POC

## Project Scope

March 2022

**Background**

Opportunity for Vanderbilt graduate and undergraduate students to trial Transformer Model technology on real business use cases from Nissan.

**Option 1 – Organic Brand Tracking**

* **Background:** Currently Nissan uses a survey to measure opinion/brand preference, brand awareness, and attribute association for automotive brands and models.
  + Attributes currently being tracked in survey
    - **Functional Attributes:** Dependable, Lasts long, Value for money, Quality fit and finish, Attractive styling, Safe, Retains resale value, Driver comfort, Fun to drive, Advanced features, Responsive handling, Prestigious, Dealerships, Fuel efficient, Quick acceleration, Environmentally friendly, Affordable
    - **Personality Attributes:** Trusted, Leader, Responsible, Confident, Innovative, Exciting, Practical, Adventurous, Passionate, Distinctive, Youthful, Aggressive
* **Project idea:** Use Transformer Model combing actual customer and expert commentary online to determine natural conversations about how automotive brands and models are being talked about instead of using the traditional attributes survey takers are pushed through to.
* **Goal:** Understand organically the conversations around the Nissan Rogue and competitors as a first use case. What attributes are naturally associated with which models, both outside of and including the existing attributes we track? And what is preference/opinion of each model in comparison to one another.
* **Model scope:** Nissan Rogue, Chevy Equinox, Ford Escape, Ford Bronco Sport, Honda CR-V, Hyundai Tucson, Kia Sportage, Mazda CX-5, Subaru Forester, Toyota RAV4
* **Text to comb:**

**Online Reviews:**

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| --- | --- | --- | --- |
| **Model** | **Source Type** | **Sources** | **Link** |
| Rogue | Owner & expert reviews | Cars.com | [2021 Nissan Rogue Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/nissan-rogue-2021/#vehicle-reviews) |
| Equinox | Owner & expert reviews | Cars.com | [2021 Chevrolet Equinox Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/chevrolet-equinox-2021/#vehicle-reviews) |
| Escape | Owner & expert reviews | Cars.com | [2021 Ford Escape Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/ford-escape-2021/#vehicle-reviews) |
| Bronco Sport | Owner & expert reviews | Cars.com | [2021 Ford Bronco Sport Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/ford-bronco_sport-2021/#vehicle-reviews) |
| CR-V | Owner & expert reviews | Cars.com | [2021 Honda CR-V Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/honda-cr_v-2021/#vehicle-reviews) |
| Tucson | Owner & expert reviews | Cars.com | [2021 Hyundai Tucson Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/hyundai-tucson-2021/#vehicle-reviews) |
| Sportage | Owner & expert reviews | Cars.com | [2021 Kia Sportage Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/kia-sportage-2021/#vehicle-reviews) |
| CX-5 | Owner & expert reviews | Cars.com | [2021 Mazda CX-5 Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/mazda-cx_5-2021/#vehicle-reviews) |
| Forester | Owner & expert reviews | Cars.com | [2021 Subaru Forester Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/subaru-forester-2021/#vehicle-reviews) |
| RAV4 | Owner & expert reviews | Cars.com | [2021 Toyota RAV4 Specs, Price, MPG & Reviews | Cars.com](https://www.cars.com/research/toyota-rav4-2021/#vehicle-reviews) |
| Rogue | Owner & expert reviews | Kbb.com | [New 2021 Nissan Rogue Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/nissan/rogue/2021/) |
| Equinox | Owner & expert reviews | Kbb.com | [2021 Chevy Equinox Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/chevrolet/equinox/2021/) |
| Escape | Owner & expert reviews | Kbb.com | [New 2021 Ford Escape Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/ford/escape/2021/?) |
| Bronco Sport | Owner & expert reviews | Kbb.com | [New 2021 Ford Bronco Sport Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/ford/bronco-sport/2021/?) |
| CR-V | Owner & expert reviews | Kbb.com | [New 2021 Honda CR-V Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/honda/cr-v/2021/?) |
| Tucson | Owner & expert reviews | Kbb.com | [New 2021 Hyundai Tucson Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/hyundai/tucson/2021/?) |
| Sportage | Owner & expert reviews | Kbb.com | [New 2021 Kia Sportage Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/kia/sportage/2021/?) |
| CX-5 | Owner & expert reviews | Kbb.com | [New 2021 MAZDA CX-5 Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/mazda/cx-5/2021/?) |
| Forester | Owner & expert reviews | Kbb.com | [New 2021 Subaru Forester Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/subaru/forester/2021/?) |
| RAV4 | Owner & expert reviews | Kbb.com | [New 2021 Toyota RAV4 Reviews, Pricing & Specs | Kelley Blue Book (kbb.com)](https://www.kbb.com/toyota/rav4/2021/?) |
| Escape | Expert review | YouTube | [Here's Why the 2020 Ford Escape Is a Huge Improvement - YouTube](https://www.youtube.com/watch?v=JvrxxApP8dw) |
| Bronco Sport | Expert review | YouTube | [The 2021 Ford Bronco Sport Is an Awesome Baby Bronco - YouTube](https://www.youtube.com/watch?v=VRYTEFT8UYY) |
| RAV4 | Expert review | YouTube | [Here's Why The 2019 Toyota RAV4 Is the Best Compact SUV - YouTube](https://www.youtube.com/watch?v=eJKwS1NpHH0) |
| Rogue | Owner & expert reviews | Edmunds.com | [2021 Nissan Rogue Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/nissan/rogue/2021/) |
| Equinox | Owner & expert reviews | Edmunds.com | [2021 Chevy Equinox Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/chevrolet/equinox/2021/) |
| Escape | Owner & expert reviews | Edmunds.com | [2021 Ford Escape Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/ford/escape/2021/) |
| Bronco Sport | Owner & expert reviews | Edmunds.com | [2021 Ford Bronco Sport Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/ford/bronco-sport/2021/) |
| CR-V | Owner & expert reviews | Edmunds.com | [2021 Honda CR-V Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/honda/cr-v/2021/) |
| Tucson | Owner & expert reviews | Edmunds.com | [2021 Hyundai Tucson Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/hyundai/tucson/2021/) |
| Sportage | Owner & expert reviews | Edmunds.com | [2021 Kia Sportage Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/kia/sportage/2021/) |
| CX-5 | Owner & expert reviews | Edmunds.com | [2021 Mazda CX-5 Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/mazda/cx-5/2021/) |
| Forester | Owner & expert reviews | Edmunds.com | [2021 Subaru Forester Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/subaru/forester/2021/) |
| RAV4 | Owner & expert reviews | Edmunds.com | [2021 Toyota RAV4 Prices, Reviews, and Pictures | Edmunds](https://www.edmunds.com/toyota/rav4/2021/) |

**New Owner Verbatim**

Provided as a separate document, “Transformer Model POC\_Mid-SUV NVES Verbatim\_MY21”

**Social media commentary**

Provided as a separate document, “Transformer Model POC\_SMCX - Lower Mid SUV Social Media Verbatim”

**Option 2 – Color and material demand based on online comments**

* **Background:** A prevailing topic in product research is color and material preference of consumers.
* **Project idea:** Use Transformer Model technology, combing actual customer and expert commentary online to determine which colors and interior materials customers are most likely to prefer.
* **Goal:** Understand organically consumer preference of exterior body paint color and interior materials. Are there differences based on region? Based on demographics?
* **Types of sites to comb:** social media, [MotorTrend: New Cars - Car News and Expert Reviews](https://www.motortrend.com/), [Car News and Information | Motor1.com](https://www.motor1.com/), [Car and Driver: New Car Reviews, Buying Advice and News](https://www.caranddriver.com/), [Motor Authority - Luxury and Performance Car News, Reviews, and Buying Guides](https://www.motorauthority.com/), [The Drive - Automotive News, Car Reviews and Car Tech](https://www.thedrive.com/), [New Cars, Used Cars, Car Dealers, Prices & Reviews | Cars.com](https://www.cars.com/), [Car Research | New & Used Cars - Consumer Reports](https://www.consumerreports.org/cars/car-research/), [Jalopnik](https://jalopnik.com/), [Carscoops | Breaking Car News, Scoops & Reviews](https://www.carscoops.com/), [Cars. Car News, Reviews and Car Finder Tools in the USA | CarBuzz](https://carbuzz.com/), [Car Reviews: New Car Prices and Used Cars Classifieds (autoguide.com)](https://www.autoguide.com/), [autoevolution.com: automotive news and vehicle specifications](https://www.autoevolution.com/)

**Option 3 – Key feature demand based on online comments**

* **Background:** As automotive experts it is easy to make assumptions around consumer demand of features based on cool ideas that come up or are coming to market. But, what types of vehicles features do consumers truly care about?
* **Project idea:** Use Transformer Model technology, combing actual customer and expert commentary online to uncover what are consumer’s true automotive pain points, and which features could solve for them.
* **Goal:** Understand organically consumer pain points and what type of features they would actually be willing to pay more for.
* **Types of sites to comb:** social media, [MotorTrend: New Cars - Car News and Expert Reviews](https://www.motortrend.com/), [Car News and Information | Motor1.com](https://www.motor1.com/), [Car and Driver: New Car Reviews, Buying Advice and News](https://www.caranddriver.com/), [Motor Authority - Luxury and Performance Car News, Reviews, and Buying Guides](https://www.motorauthority.com/), [The Drive - Automotive News, Car Reviews and Car Tech](https://www.thedrive.com/), [New Cars, Used Cars, Car Dealers, Prices & Reviews | Cars.com](https://www.cars.com/), [Car Research | New & Used Cars - Consumer Reports](https://www.consumerreports.org/cars/car-research/), [Jalopnik](https://jalopnik.com/), [Carscoops | Breaking Car News, Scoops & Reviews](https://www.carscoops.com/), [Cars. Car News, Reviews and Car Finder Tools in the USA | CarBuzz](https://carbuzz.com/), [Car Reviews: New Car Prices and Used Cars Classifieds (autoguide.com)](https://www.autoguide.com/), [autoevolution.com: automotive news and vehicle specifications](https://www.autoevolution.com/)