Vehicle Type and Brand Preference in British Columbia : Influential Factors Analysis

Preferences for types and brands of vehicles in British Columbia, Canada and Reason

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Abstract

As vehicle ownership continues to rise across Canada,understanding regional preferences in vehicle types and brands becomes increasingly important for both policymakers and manufacturers. In Canada, there is an estimated average of 1.5 vehicles per household. This paper is going to discuss the preferences for vehicle types and brands in British Columbia, using random sample collections and comparisons. This paper will also focus on the reason behind the preference, investigating factors such as demographics, cultural values, environmental concerns, and regional differences, using statistical analysis. Overall, it is found that sports utility vehicles, pickup trucks and sedans are among the most popular types of cars, and traditional luxury brands such as Audi, Lexus and Mercedes Benz; emerging EV brands such as Tesla and Kia are most common in British Columbia. In addition, after analyzing the data collected, it is discovered that geographics, regional differences and government policies play a huge role in people's choice of vehicles.

Keywords: Vehicle, British Columbia, types, brand, reason, geographics, Audi, Tesla, Toyota

Contents

Introduction

As the Canadian government continuously issues new policies and plans to reduce environmental pollution caused by cars, for example the net-zero emissions policy and the cleanBC policy, there is an increasing diversity on the types of cars on British Columbia roads. Furthermore, the unique mountain terrain and rainy weather of British Columbia also impel buyers to take those factors into consideration. This provides an ideal place to conduct research analyzing the relation between choice of car and factors such as geographic factors and government policies. Previous studies have identified behavioral and psychographic consumer characteristics as key components of car choice (Baltas & Charalampos Saridakis, 2013), but most are conducted in a broader or completely different region (Nerurkar et al., 2023), failing to account for the unique geographic factors, diverse cultural background, and policies of British Columbia. Some are conducted at a much earlier date, with limiting data on the fast emerging EV industry. Specific analysis of the limitations of existing papers are stated in the next part.

While national trends in vehicle preferences are well-documented on government websites and libraries, there is currently limited research on how British Columbia's distinct features connect and shape the preference for the type and brand of vehicles. This study investigates the predominant types and brands of vehicles preferred by British Columbia residents and examines the relation between factors such as geographics, cultural backgrounds, and environmental concerns and those preferences. Specifically, it addresses the following :

1. Which vehicle types and brands are most popular in different parts of British Columbia?

2. How do government policies, cultural background, and regional geography correlate with car preference, or specifically, EV adoption?

3. What role, or how big a role, do federal and provincial government policies play in household automotive decisions?

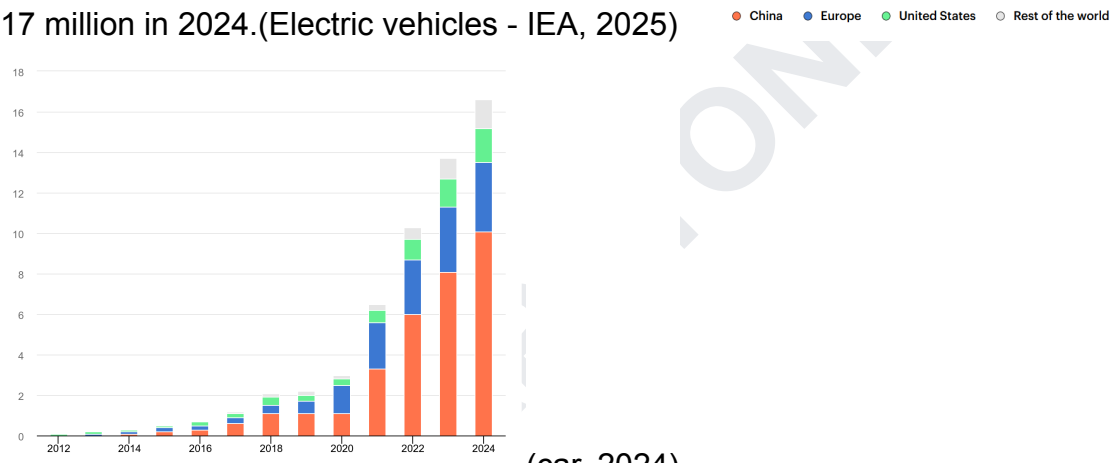
This study provides valuable and actionable insights for local governments seeking to expand EV facilities such as public charging ports, urban developers updating road infrastructures, automakers and dealers designing marketing strategies and pricings to British Columbia regions, and environmental advocates addressing barriers to sustainable transportation. Following a review of existing literature, this paper outlines a mixed-methods approach combining survey data on local streets, sales figures by auto dealers, government data and numbers published, and interviews with people working in the British Columbia auto industry.The results are analyzed to identify consumer trends and preferences; additionally, this study discusses the impact of various factors influencing vehicle choice.

Literature Review

There are already some existing papers and research on similar topics. However, some only included limited models of electrical vehicles in the research because of the early date the paper was published, while others' research didn't take place in British Columbia, failing to account for the factors unique to this Canadian province.

In the research article by Baltas and Saridakis (2013), they investigated how behavioral and psychographic factors influence consumer preferences for vehicle types, using data from a survey of 1,622 consumers. The authors develop a multinomial logit model to analyze choices among 12 car types, including sports utility vehicles, electrical vehicles and luxury vehicles, and integrate 30 variables, including objective measures such as demographics, vehicle attributes, and novel subjective factors like environmental attitudes, emotional attachment to cars, and information sources used. The study highlights the critical role of subjective factors in shaping car preferences, revealing that environmental concerns strongly influence consumers' lean towards environment friendly alternatives, leading them to favor eco friendly choices such as electrical vehicles. Additionally, individuals emotionally invested in cars—those with high involvement or attachment—tended to prioritize performance or luxury models, while practical needs such as family requirements or commuting demands significantly swayed vehicle type selection. These insights carry significant practical implications: for example, automakers can enhance marketing strategies by tailoring campaigns to psychographic traits, such as ecological conscious messaging for environmentally driven buyers, while policymakers can amplify sustainable transportation adoption by designing incentives that align with consumers' environmental values, such as subsidies for electric vehicles or infrastructure investments that address usage contexts like urban commuting. Moreover, this research advances traditional vehicle choice models by integrating psychological and behavioral variables, offering a more holistic understanding of consumer decisions. It bridges gaps in prior research, which focused heavily on objective factors like price and demographics. However, although

the 2013 paper is credible for its time and foundational in understanding consumer behavior toward various types of vehicles, its electrical vehicle specific insights are limited by technological and market changes over the past decade. Specifically, there are more new policies issued by governments all around the world, such as China's 2035 NEV mandate starting in 2017(*CHINA'S NEW ENERGY VEHICLE MANDATE POLICY (FINAL RULE)*, 2018) and U.S. Inflation Reduction Act (2022)(Senate Democrats, 2022). These policies postdate the study but critically shape modern electrical vehicle adoption. Furthermore, there have been new advancements such as fast charging networks, battery swapping technology, and reducing lithium ion battery costs since 2013. There are many more new models developed by electrical vehicles based on these technologies. The amount of electric vehicles also increased significantly. It rose from about 0.3 million in 2013 to about 17 million in 2024.(Electric vehicles - IEA, 2025)



(car, 2024)

This graph clearly demonstrates the huge change in the electrical vehicle market since 2013.

In the research paper by Nerurkar et al. (2023), the group investigates how demographic variables influence car purchase decisions in India, focusing mainly on two factors: car features and cost consciousness. Using a survey of 103 respondents and statistical methods like factor analysis and ANOVA(Analysis of Variance) , the authors found that demographic variables—including gender, education, occupation, and age—had no significant influence on consumers' preferences for Vehicle features such as safety and technology or cost conscious considerations like fuel efficiency and resale value. This finding contradicts prior studies that emphasized demographics as key predictors of automotive choices. Instead, the research

revealed emerging priorities among Indian consumers: they shift toward fashion consciousness, in other words prioritizing trendy designs and brand image, and environmental consciousness, for example preferring eco-friendly vehicles over traditional cost factors. This suggests a broader cultural transition in India's automotive market, where sustainability and status symbolism are increasingly driving purchasing decisions. This study implied that automakers should focus on innovative features, sustainability, and branding rather than demographic targeting. It also hints policy makers to leverage environmental incentives such as electric vehicle subsidies to align with consumer trends. Although insightful, this study is not directly applicable to BC due to differences in population size, cultural landscape, and infrastructure.

India takes an area of 3.29 million km² (*India - Wikipedia*, 2023) while British Columbia has an area of 944.74 thousand km² (*British Columbia - Wikipedia*, 2022) . Also, India has a population of 1.41 billion, compared to British Columbia's 5 million. What's more, it lacks the diversity of culture and unique geography, which are special to British Columbia. British Columbia has more than 450 ethnic groups(Kirby, 2024), although India has more than 2000, it is difficult to include in the research above because of its wide distribution and the research mentioned above only interviewed 103 people. In contrast, in this paper, the traditional ways of interviewing or surveying consumers are not used, instead this research takes samples of vehicle types and brands directly, ensuring inclusiveness and diversity.

Another research done by Zia et al. (2016), focuses on brand preferences in Pakistan's automobile industry. The research concentrates on brand participation, advocacy, involvement, price, and quality. Using a sample of 120 consumers in Lahore, the capital of Pakistan(*Lahore - Wikipedia*, 2024), the authors employed regression analysis to test hypotheses derived from a theoretical framework. The study revealed that brand advocacy, driven by recommendations from satisfied users, had the strongest impact (31.3%) on consumer brand preferences in Pakistan's automobile industry, followed by brand involvement (25.1%), which reflects consumers' emotional connections and interest in specific brands. Quality (15.4%), brand participation (13.9%), and price (7.2%) also influenced preferences, though price played the least significant role. Demographically, 90% of respondents were male, with over half earning between 75,000–100,000 PKR monthly, equalling

to 373 - 500 CA$(*PKRCAD : Pakistani Rupee/Canadian Dollar - MSN Money*, 2025), which is middle class in Pakistan(Afshan Subohi, 2006). Results show that Suzuki (43.3%) and Daihatsu (29.2%) emerged as the most preferred brands. Methodologically, the findings were derived from a 22-item Likert-scale questionnaire analyzed via SPSS, showing moderate overall reliability (Cronbach's α = 0.83). However, some variables, such as brand participation (α = 0.36), exhibited weak internal consistency, suggesting caution in interpreting those specific results. These insights underscore the dominance of intangible factors like advocacy and emotional engagement over price in shaping brand loyalty within Pakistan's auto market. This research suggests that the Pakistan market should prioritize brand advocacy and involvement and Pakistan policies should emphasize quality and consumer engagement over price competitiveness. Although the research conducted by Zia et al's group investigates different affecting factors from this research, as their research mainly focuses on factors related to automakers, it still provides a valuable insight for analysis methodologies that can be used. On top of that, this research combines both vehicle brands and vehicle types in British Columbia, which allows comparison between the two variables and therefore finding the differences and similarities of the factors affecting them.

Taken together, these researches help determine the methodology that can be used to determine the affecting factors of preference of vehicle brand and type in British Columbia. It also explains and illustrates the significance and uniqueness of this research and how it stands from other researches on similar topics.

Methodology

Sampling Method

This study adopts a mixed-methods design, combining observational field research, semi-structured interviews, and secondary data analysis to investigate vehicle type and brand preferences in British Columbia province.

Procedure

Observational data were collected through randomized sampling of parked vehicles across urban and rural regions of British Columbia, such as Vancouver and Richmond. With repeated measures taken over multiple sessions to ensure temporal and spatial accuracy. Vehicle type, brand, and features, for example, all wheel drives and roof racks, were recorded using a standardized protocol. A semi-structured interview was conducted with an automotive industry worker, specifically a British Columbia Toyota product advisor, to contextualize trends, focusing on climate adaptability, policy incentives, and regional sales patterns. Secondary data included Statistics Canada demographics, Environment Canada climate reports, the official government website of Canada, the official government website of British Columbia and manufacturer specifications for popular models such as Tesla Model Y and Toyota RAV4.

Data Analysis

Quantitative analysis for vehicle surveys are done manually as they are mostly clear, obvious and reasonable, while interview transcripts were analyzed using a mixed method of manual analysis to extract basic information and thematic coding using NVivo to extract qualitative insights. Some other statistics collection and visual display software were also used in this research such as excel to keep the quantitative data collected in clear order and generate easy observable trends using graphs. Limitations in this research include potential observer bias in vehicle categorization, limited geographic coverage of remote areas, and reliance on a single industry perspective. The interview is conducted with the permission and acknowledgement of the interviewee. Personal identifiers such as license plates and

names and other sensitive personal information are excluded from observational records.

Results

Survey Data

Trial 1

Location.
9151 BRIDGEPORT RD RICHMOND, BC (Richmond Costco Parking Lot)

Time.
5:30pm - 6:00pm

Goal.
To find the preference of car type and brand in British Columbia

Raw Data.

Brands:
(Listed in alphabetical orders)

Acura	2
Audi	5
Benz	8
BMW	5
Cadillac	1
Chevrolet	1
Chrysler	1
Dodge	1
Ford	5
Honda	13
Hyundai	8

Infinity	1
Jeep	3
Kia	7
Land Rover	1
Lexus	11
Mazda	4
Mitsubishi	3
Nissan	2
Porsche	1
Subaru	6
Tesla	17
Toyota	28
Volkswagon	3
Volvo	1
Total	138

Types:
(Listed in alphabetical orders)

MPV (Multi Purpose Vehicle)	2
Pick Up Truck	7
Sedan	43
Sports Car	1

SUV (Sports Utility Vehicle)	112
Van	1
Total	166

Power Types:
(Listed in alphabetical orders)

EV (Electric Vehicle)	27
Hybrid	2
ICE Vehicles (Internal Combustion Engine Vehicles)	109
Total	138

Table.

Types - Brand Table

Type / Brand	MPV	Pick Up Truck	Sedan	SUV	Sports Car	Van
Acura	NA	NA	NA	2	NA	NA
Audi	NA	NA	NA	5	NA	NA
Benz	NA	NA	2	5	NA	1
BMW	NA	NA	2	3	NA	NA
Cadillac	NA	NA	NA	1	NA	NA
Chevrolet	NA	NA	1	NA	NA	NA
Chrysler	NA	NA	NA	1	NA	NA
Dodge	NA	NA	NA	1	NA	NA

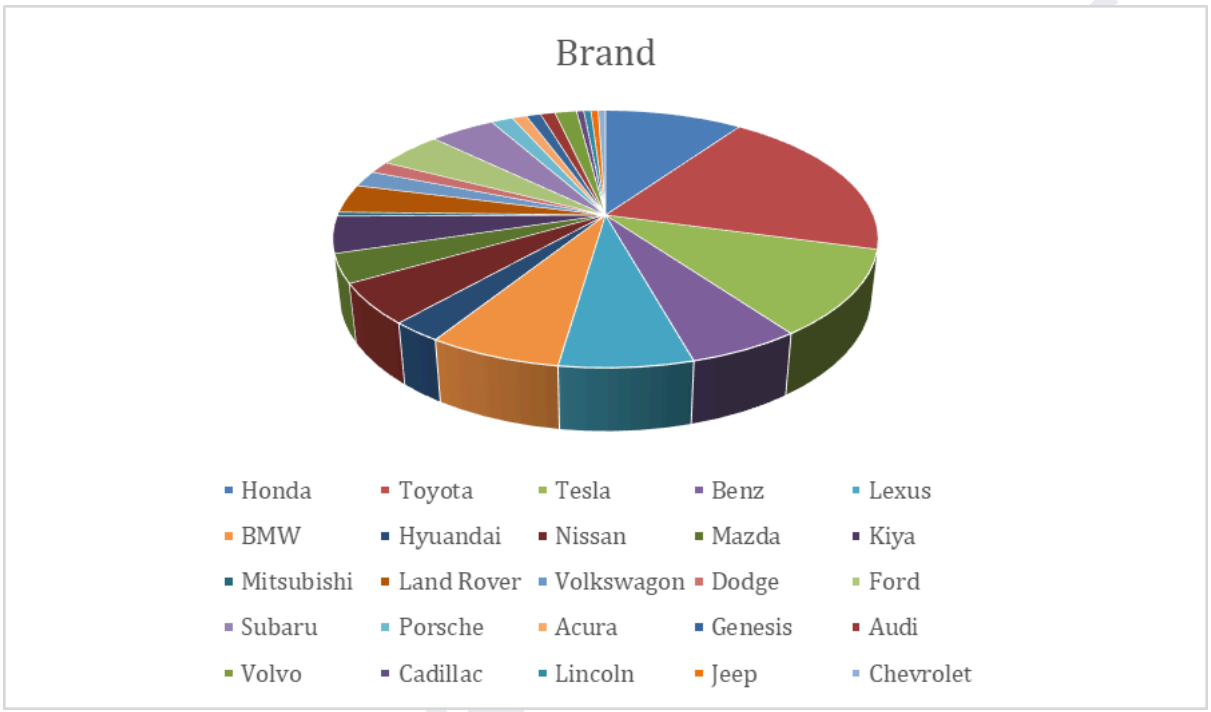
Ford	NA	3	1	1	NA	NA
Honda	NA	NA	3	10	NA	NA
Hyundai	NA	NA	2	6	NA	NA
Infinity	NA	NA	NA	1	NA	NA
Jeep	NA	NA	NA	3	NA	NA
Kia	NA	NA	4	3	NA	NA
Lexus	NA	NA	2	9	NA	NA
Mazda	NA	NA	1	3	NA	NA
Mitsubishi	NA	NA	NA	3	NA	NA
Nissan	NA	NA	NA	2	NA	NA
Porsche	NA	NA	NA	1	NA	NA
Land Rover	NA	NA	NA	1	NA	NA
Subaru	NA	NA	1	5	NA	NA
Tesla	NA	NA	10	7	NA	NA
Toyota	1	1	5	21	NA	NA
Volkswagon	NA	NA	NA	2	NA	NA
Volvo	NA	NA	NA	1	NA	NA

Power Type - Brand Table

	Hyundai	Tesla	Kia	Toyota	Lexus
EV	2	17	7	NA	1
Hybrid	1	NA	NA	1	NA

Graph.

Brands:



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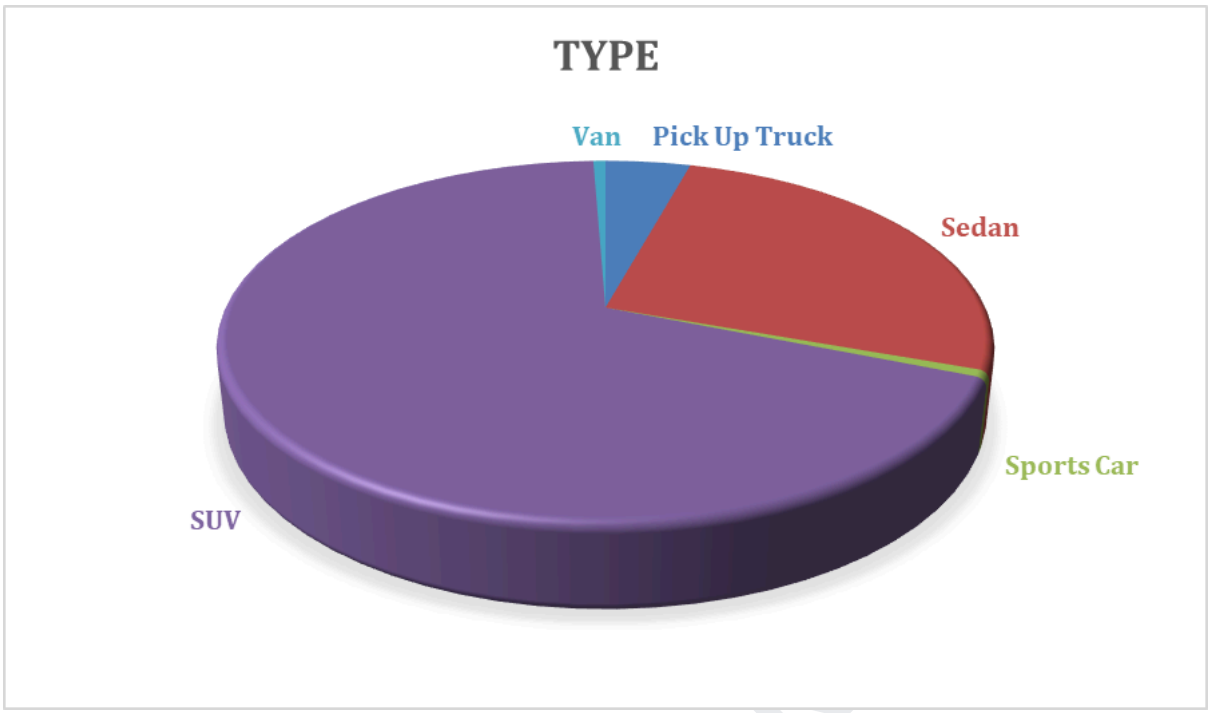
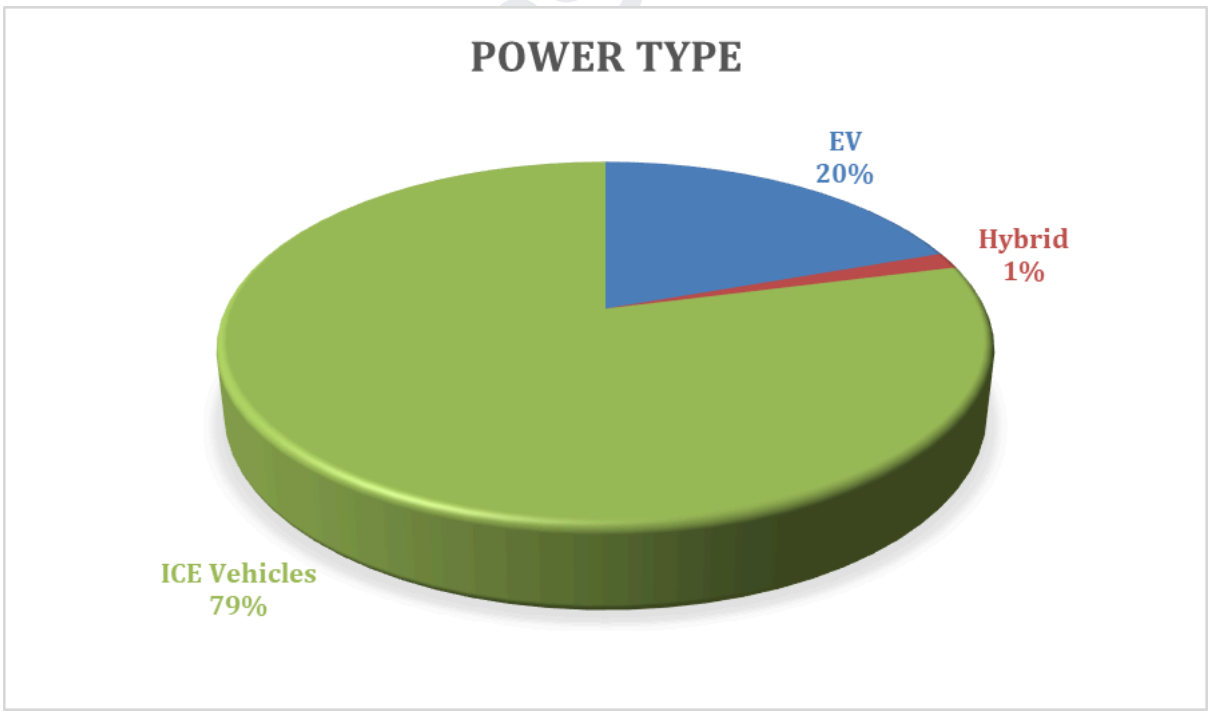
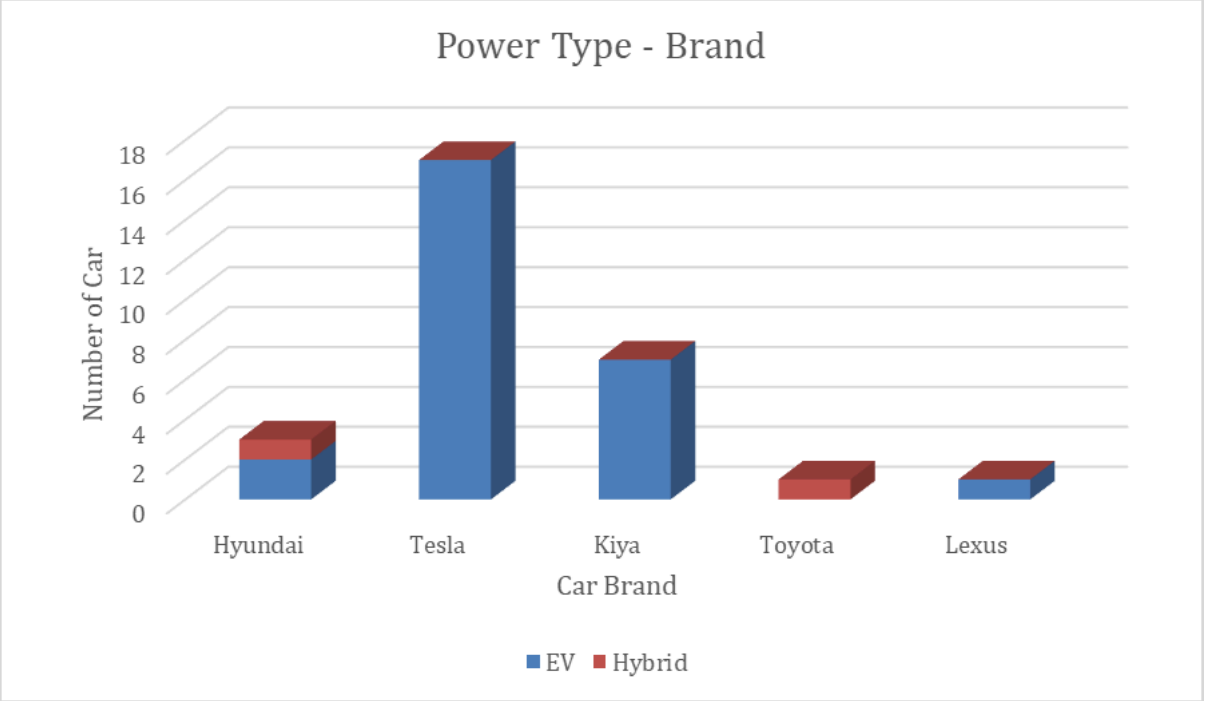


Power Types:



Power Type - Brands:



Trial 2

Location.
3600 W 16TH AVE VANCOUVER, BC

Time.
8:10am - 8:25am

Goal.
To find analyze and compare the preference of car type and brand in British Columbia

Raw Data.

Brands:
(Listed in alphabetical orders)

Acura	1
Audi	2
Benz	2

BMW	13
Cadillac	1
Chevrolet	1
Dodge	3
Ford	9
Genesis	2
Honda	19
Hyuandai	5
Jeep	1
Kia	9
Land Rover	7
Lexus	13
Lincoln	1
Mazda	7
Mitsubishi	1
Nissan	10
Porsche	3
Subaru	9
Toyota	38
Tesla	21
Volkswagon	4
Volvo	3

Total	195

Types:
(Listed in alphabetical orders)

Bus	10
MPV (Multi Purpose Vehicles)	8
Pick Up Truck	12
Sedan	76
SUV (Sports Utility Vehicle)	150
Truck	6
Van	1
Total	263

Power Types:
(Listed in alphabetical orders)

EV (Electric Vehicles)	39
Hybrid	3
ICE Vehicles (Internal Combustion Engine Vehicles)	221
Total	263

Table.

Types - Brand Table

Type Brand	MPV	Pick Up Truck	Sedan	Bus	SUV	Truck	Van
Acura	NA	NA	1	NA	1	NA	NA
Audi	NA	NA	1	NA	1	NA	NA
Benz	NA	NA	NA	NA	11	NA	NA
BMW	NA	NA	5	NA	8	NA	NA
Cadillac	NA	NA	NA	NA	1	NA	NA
Chevrolet	NA	1	1	NA	NA	NA	NA
Dodge	2	2	NA	NA	NA	NA	NA
Ford	NA	3	1	NA	5	NA	1
Genesis	NA	NA	2	NA	NA	NA	NA
Honda	NA	NA	11	NA	8	NA	NA
Hyuandai	NA	NA	1	NA	4	NA	NA
Jeep	NA	NA	NA	NA	1	NA	NA
Kia	NA	NA	1	NA	9	NA	NA
Land Rover	NA	NA	NA	NA	7	NA	NA
Lexus	NA	NA	1	NA	12	NA	NA
Lincoln	NA	NA	NA	NA	1	NA	NA
Mazda	NA	NA	6	NA	1	NA	NA
Mitsubishi	NA	NA	NA	NA	1	NA	NA
Nissan	NA	NA	2	NA	7	NA	NA
Porsche	NA	NA	1	NA	2	NA	NA
Subaru	NA	NA	1	NA	9	NA	NA
Toyota	3	4	20	NA	13	NA	NA

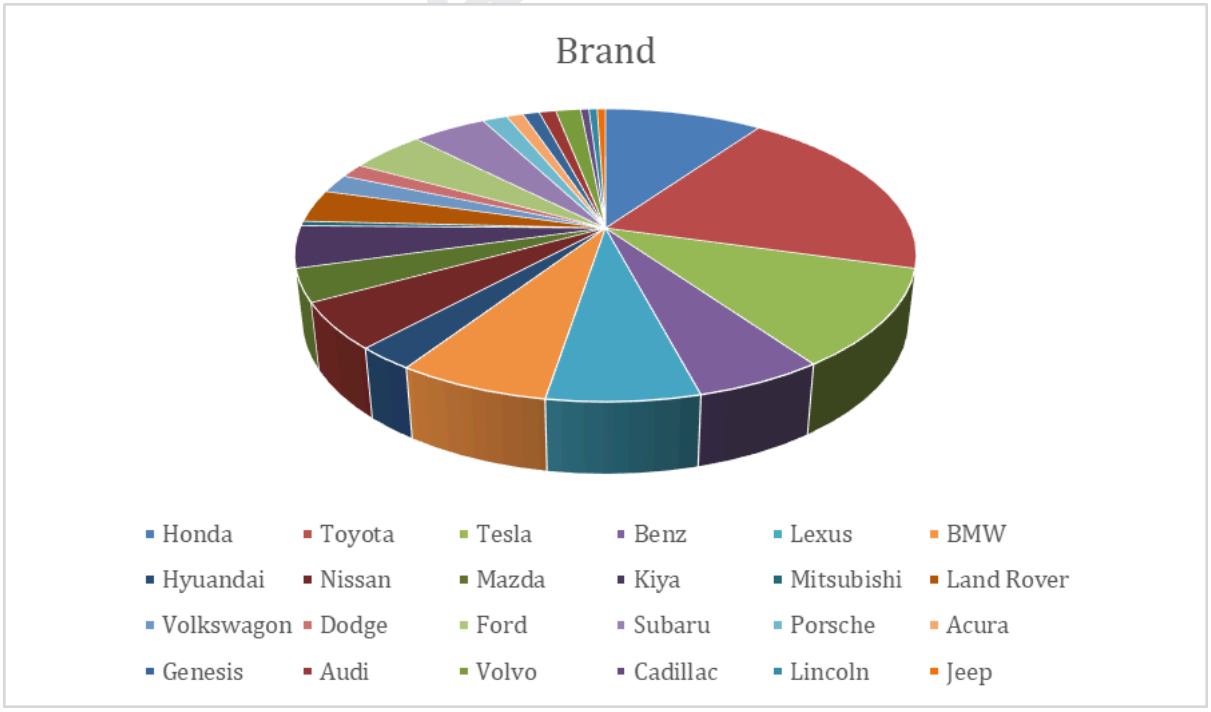
Tesla	NA	NA	10	NA	11	NA	NA
Volkswagon	NA	NA	2	NA	2	NA	NA
Volvo	NA	NA	2	NA	1	NA	NA

Power Type - Brand Table

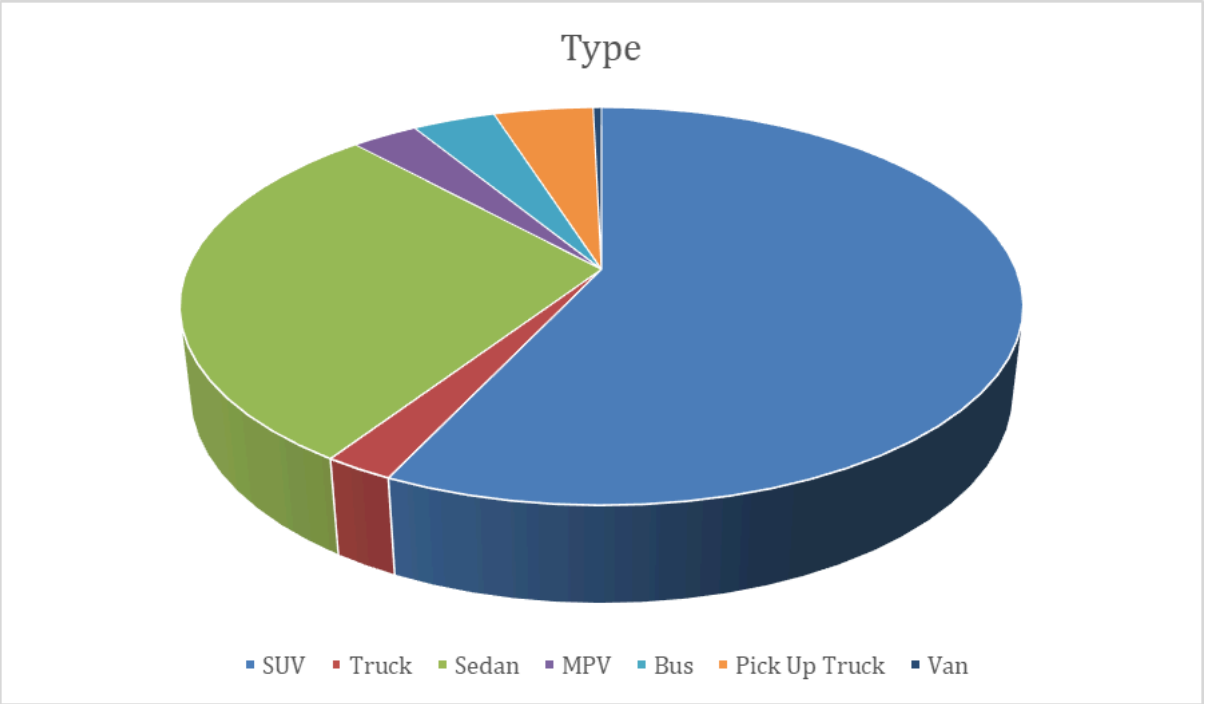
	Hyundai	Tesla	Kia	Toyota	Lexus	Porsche	Ford	Nissan	Benz
EV	1	21	10	1	3	1	1	1	NA
Hybrid	NA	NA	NA	2	NA	NA	NA	NA	1

Graph.

Brands:



Types:



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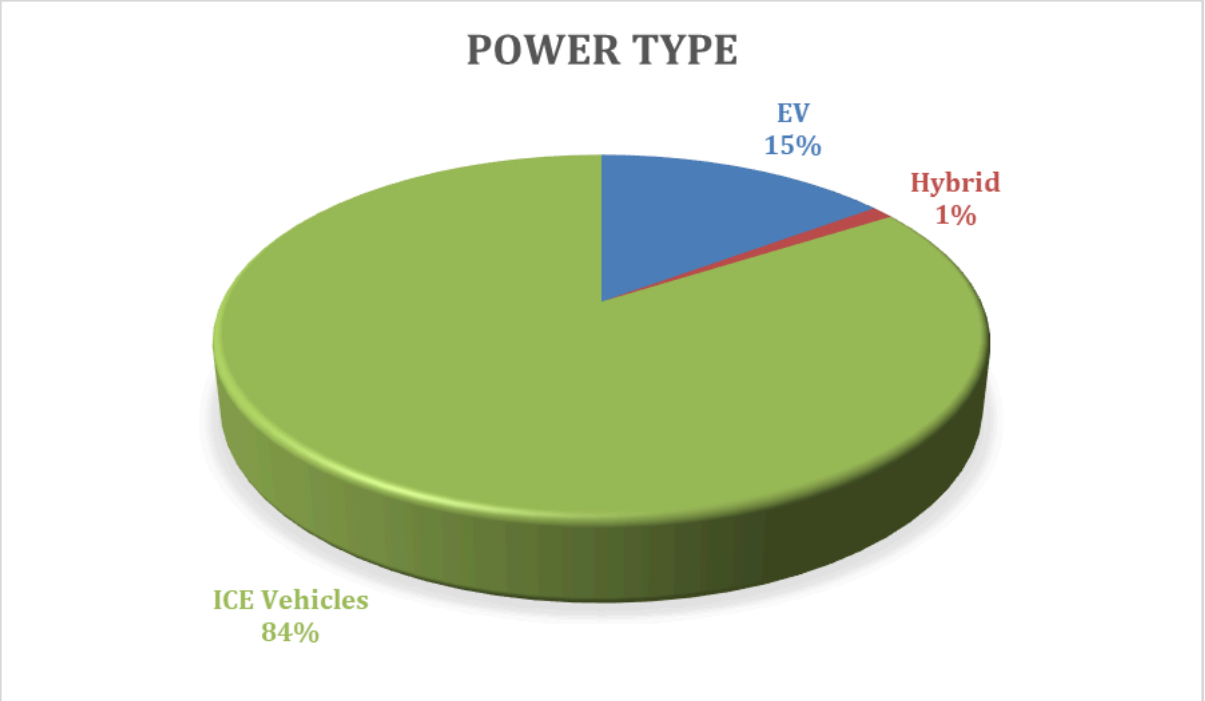
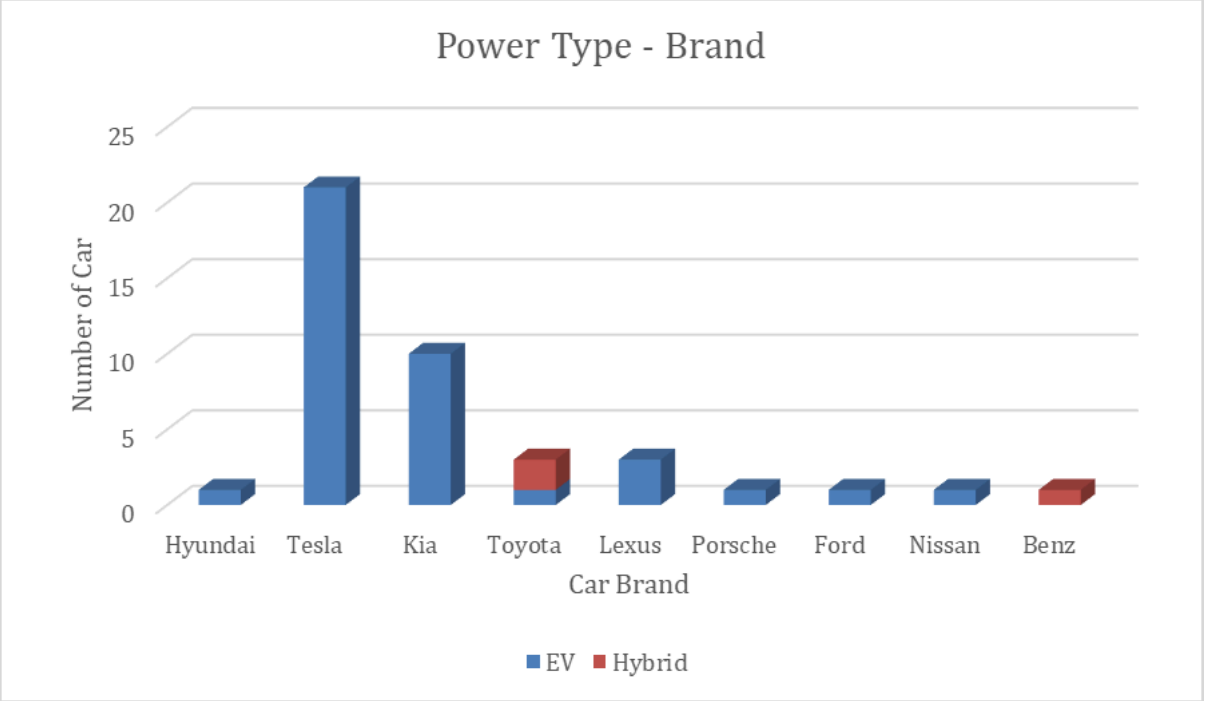


Power Type - Brands:



Trial 3

Location.
2106 WESTERN PKWY VANCOUVER, BC (University of British Columbia)

Time.
7:00 pm - 7:45pm

Goal.
To find, analyze and compare the preference of car type and brand in British Columbia

Raw Data.

Brands:
(Listed in alphabetical orders)

Acura	1

Audi	2
Benz	2
BMW	3
Dodge	1
GMC	1
Ferrari	1
Ford	2
Honda	2
Hyuandai	6
Jeep	1
Kia	1
Land Rover	1
Lexus	1
Lincoln	1
Mazda	1
Nissan	1
Subaru	4
Toyota	19
Tesla	20
Volkswagon	3
Total	74

Types:
(Listed in alphabetical orders)

Bus	2
MPV (Multi Purpose Vehicles)	3
Pick Up Truck	2
Sedan	62
SUV (Sports Utility Vehicle)	83
Truck	1
Van	0
Sports Car	5
Total	158

Power Types:
(Listed in alphabetical orders)

EV (Electric Vehicles)	22
Hybrid	1
ICE Vehicles (Internal Combustion Engine Vehicles)	135
Total	158

Table.

Types - Brand Table

Type / Brand	MPV	Pick Up Truck	Sedan	Bus	SUV	Truck	Sports Car

Acura	NA	NA	1	NA	1	NA	NA
Audi	NA	NA	NA	NA	2	NA	NA
Benz	NA	NA	NA	NA	NA	NA	2
BMW	NA	NA	1	NA	2	NA	NA
Dodge	NA	NA	NA	NA	1	NA	NA
Ferrari	NA	NA	NA	NA	NA	NA	1
Ford	NA	1	NA	NA	1	NA	NA
GMC	NA	NA	NA	NA	1	NA	NA
Honda	NA	NA	1	NA	1	NA	NA
Hyuandai	NA	NA	3	NA	3	NA	NA
Jeep	NA	NA	NA	NA	1	NA	NA
Kia	NA	NA	NA	NA	1	NA	NA
Land Rover	NA	NA	NA	NA	1	NA	NA
Lexus	NA	NA	NA	NA	1	NA	NA
Lincoln	NA	NA	NA	NA	1	NA	NA
Mazda	NA	NA	NA	NA	1	NA	NA
Nissan	NA	NA	NA	NA	1	NA	NA
Subaru	NA	NA	NA	NA	4	NA	NA
Toyota	NA	NA	13	NA	6	NA	NA
Tesla	NA	NA	19	NA	1	NA	NA
Volkswagon	NA	NA	2	NA	1	NA	NA

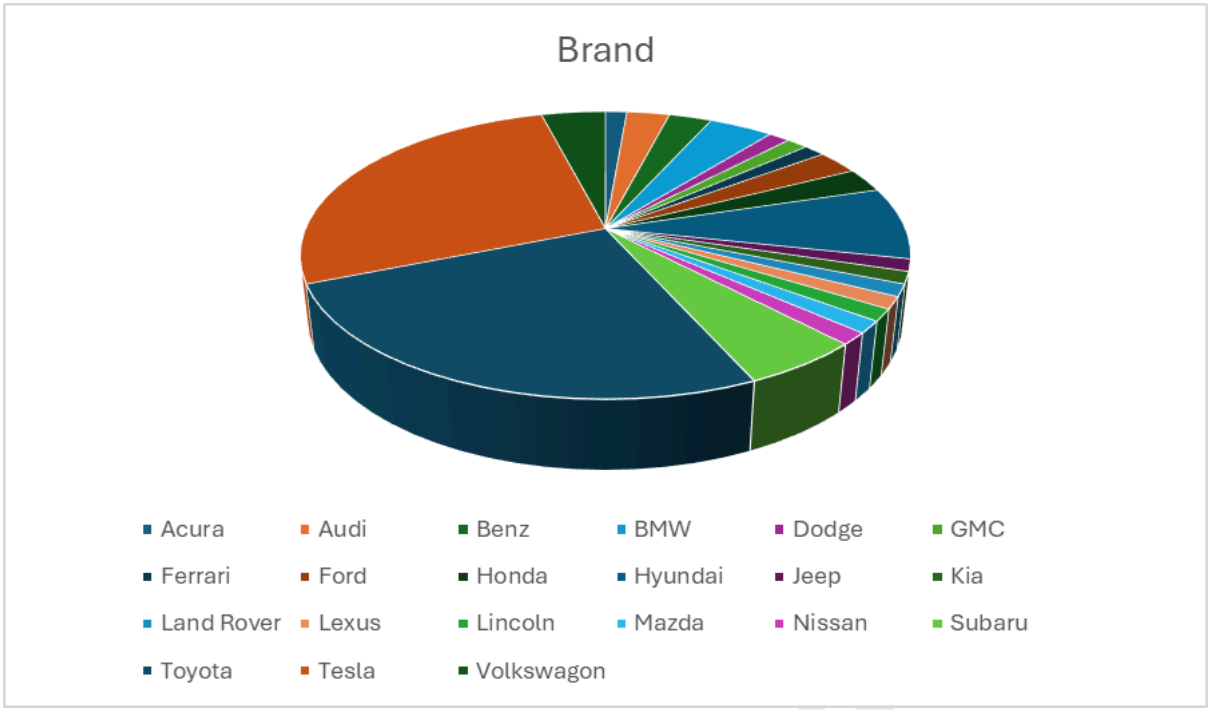
Power Type - Brand Table

	Hyundai	Tesla
EV	1	20

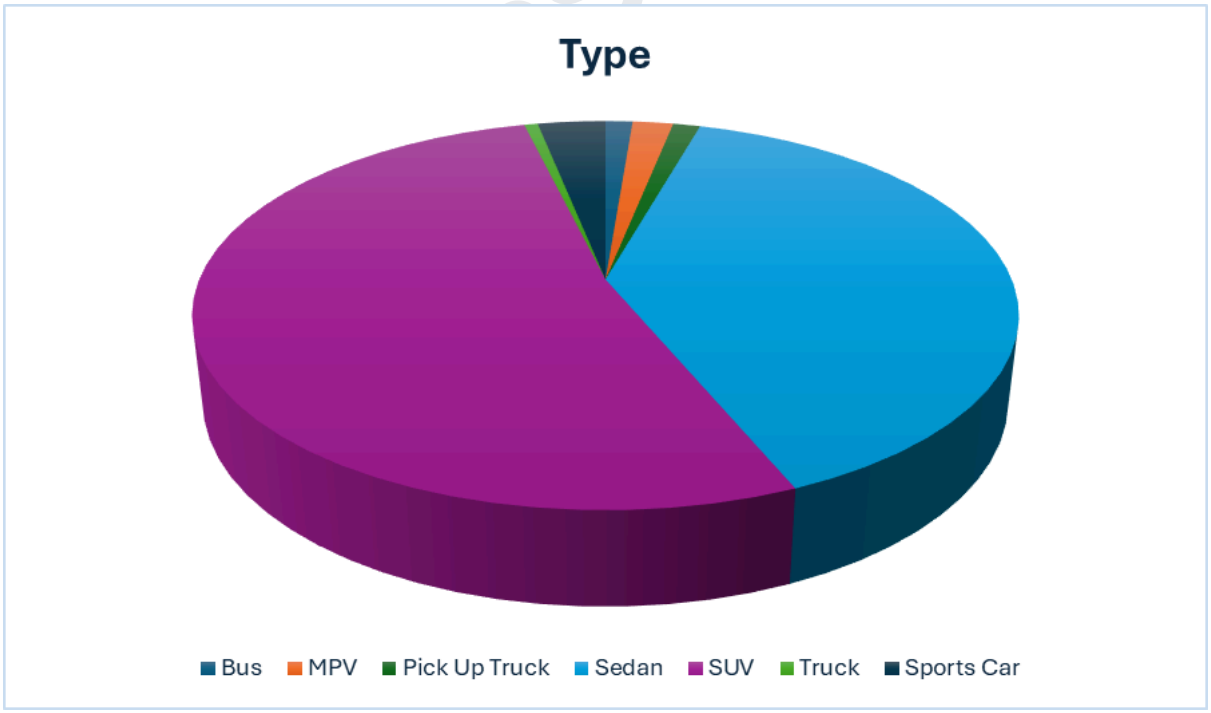
Hybrid	1	NA

Graph.

Brands:


Brand
Acura
Audi
Benz
BMW
Dodge
GMC
Ferrari
Ford
Honda
Hyundai
Jeep
Kia
Land Rover
Lexus
Lincoln
Mazda
Nissan
Subaru
Toyota
Tesla
Volkswagon

Types:


Type
Bus
MPV
Pick Up Truck
Sedan
SUV
Truck
Sports Car

Interview Data

Time.
7:00 am - 7:45am

Method.
Online meeting.

Goal.
To find, analyze and compare the preference of car type and brand in British Columbia

Data.

Q1: How long have you worked in automotive sales?
Chenney: I have been in the industry for over 5 years, primarily in British Columbia.

Q2: What vehicle types and brands are most popular among BC customers?
Chenney: SUVs and crossovers dominate, particularly models like the Honda CR-V, Toyota RAV4, and Subaru Outback. Japanese brands are highly favored, though electric vehicles such as Tesla are growing in popularity due to provincial environmental policies.

Q3: Are there regional differences in vehicle preferences within BC?
Chenney: Yes. In Metro Vancouver, compact cars and EVs sell well due to urban infrastructure. In contrast, rural areas like the Interior prioritize trucks and rugged SUVs for off-road needs. Coastal communities often favor hybrids for environmental reasons.

Q4: What factors influence customers' purchasing decisions?
Chenney: Economic conditions significantly impact choices, with buyers prioritizing affordability amid inflation. Brand loyalty is also critical; many customers stick to brands they grew up with. Cultural differences exist: Western clients often maintain long-term relationships with salespeople, while Asian clients prioritize cost efficiency.

Q5: How does brand loyalty manifest across demographics?
Chenney: Western customers frequently return to the same salesperson for decades, valuing trust. Asian customers, however, are more likely to seek competitive pricing across dealerships.

Discussion

The findings from three observational trials and the interview data reveal critical insights into vehicle preferences across British Columbia (BC), highlighting the interplay of regional, economic, and cultural factors. This section contextualizes these results within existing literature, discusses implications for policy and industry stakeholders, acknowledges limitations, and identifies avenues for future research.

Consistent across Trials 1 (Richmond), 2 (Vancouver) and 3(University of British Columbia), SUVs dominated vehicle types (69% and 57% of observations, respectively), aligning with global trends favoring practicality and versatility (Baltas & Saridakis, 2013). Brands like Toyota (20.3%–19.5% share), Honda, and Tesla emerged as leaders, reflecting strong brand loyalty and shifting preferences toward electric vehicles (EVs). Trial 3 (UBC) introduced a notable deviation: a high prevalence of luxury and sports cars, likely attributable to the university's affluent demographic, including international students and faculty. This contrasts with Chenney's interview data, which emphasized cost sensitivity among Asian consumers, suggesting socioeconomic status may override cultural purchasing patterns in high income enclaves.

EV adoption (19.6%–14.8% across trials) signals progress toward BC's CleanBC (2023) goals, though internal combustion engine (ICE) vehicles remain dominant (79%–84%). This mirrors global EV growth trajectories (IEA, 2024) but underscores infrastructural and affordability barriers, particularly in rural regions where trucks/SUVs prevail (Transport Canada, 2022).

Chenney's insights corroborate observed regional divides: urban centers like Vancouver prioritize compact cars and EVs, while rural areas favor rugged vehicles such as Ford pickups. Cultural narratives further shape preferences; Western buyers often maintain long-term dealer relationships, whereas Asian clients prioritize cost efficiency. However, UBC's luxury car prevalence complicates this dichotomy,

suggesting affluence may heighten status driven purchases despite cultural backgrounds (Ul & Sohail, 2016).

The findings carry significant implications for policymakers and automotive stakeholders. First, environmental policies such as CleanBC must prioritize rural regions through targeted subsidies for electric vehicle (EV) charging infrastructure to reduce reliance on internal combustion engine (ICE) vehicles, which dominate in areas with limited EV accessibility. Second, automakers should adopt regionally tailored marketing strategies: brands like Tesla and Toyota could emphasize SUVs in rural British Columbia (BC) while promoting compact EVs in urban hubs like Vancouver. Luxury manufacturers, meanwhile, may capitalize on affluent enclaves such as the University of British Columbia (UBC), where high-income demographics drive demand for premium vehicles. Third, rising economic pressures, including inflation and insurance costs (McGillivray, 2025), require dealerships to offer flexible financing options to retain cost-conscious buyers, particularly in price-sensitive markets.

Several limitations constrain the study's generalizability. Sampling bias arises from data collection in three urban/suburban locations (Richmond, Vancouver, UBC), which may not reflect rural or northern BC preferences. Temporal factors, such as varying survey times, for example rush hours versus evening, could skew vehicle type representation, as commuter heavy periods may overrepresent sedans or EVs. Demographic gaps persist, as the UBC trial's luxury car prevalence highlights unexplored intersections between income, ethnicity, and purchasing behavior (Kirby, 2024; Subohi, 2006). Geographic proximity of survey sites, restricted by transportation and time constraints, further limits diversity in regional comparisons. Also, when conducting the survey, the vehicles whose brands cannot be easily recognized are excluded from the data for vehicle brands. However, some car brands are more symbolic, causing potential error in the data for car brand. Additionally, vehicle identification via photographs and Google Lens introduces potential misclassification errors, as automated tools may inaccurately distinguish similar models or powertrain types.(Shapovalov et al., 2019). What's more, because of the complicated traffic, some cars may have been recorded several times.

Future studies should address these gaps through geographic expansion into underrepresented regions like BC's Interior to validate urban-rural divides in vehicle preferences. Longitudinal analyses tracking EV adoption rates post-policy interventions (e.g., CleanBC incentives) could clarify the efficacy of environmental initiatives. Socioeconomic intersections, including how income, ethnicity, and education collectively shape purchasing decisions, warrant deeper exploration to untangle cultural and economic influences. Finally, employing advanced measurement instruments, such as license plate recognition systems or dealership sales data, could enhance accuracy in vehicle classification and reduce reliance on manual identification methods.

Conclusion

This study examined vehicle type and brand preferences in British Columbia (BC), Canada, and the factors influencing these choices, including geographic, cultural, and policy-related dynamics. Through observational surveys, interviews, and secondary data analysis, key trends emerged: SUVs, pickup trucks, and sedans dominate BC roads, with Toyota, Honda, and Tesla representing the most preferred brands. Regional disparities were evident, with urban centers like Vancouver favoring compact cars and EVs, while rural areas prioritized rugged trucks and SUVs. Government initiatives, such as CleanBC, correlated with growing EV adoption (14.8%–19.6% of observed vehicles), though internal combustion engines (79%–84%) remained prevalent due to infrastructural and affordability barriers.

The findings align with global trends toward practicality and sustainability while underscoring BC's unique cultural and geographic influences. Brand loyalty, socioeconomic status, and environmental awareness emerged as critical drivers, with affluent enclaves like UBC exhibiting distinct preferences for luxury vehicles. These insights hold practical significance: policymakers must address rural-urban divides in EV infrastructure, automakers should tailor marketing to regional needs, and dealers could leverage cultural narratives around trust and value.

Limitations, including urban centric sampling and observer bias, highlight opportunities for future research. Expanding data collection to northern and interior BC, integrating dealership sales records, and analyzing longitudinal policy impacts would strengthen understanding of evolving preferences. Ultimately, this study provides a foundation for stakeholders to navigate BC's complex automotive landscape, balancing environmental goals with consumer behavior and regional realities.

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Appendix A. Interview Transcripts

Interview Transcript: Automotive Sales Insights in British Columbia
Interviewer: Eric BingxinLi | Interviewee: Chenney XueliangChen, Car Salesperson (Richmond, BC), project mentor

[Begin Recording]

Interviewer: Good morning, Mr. Chen! Thank you for taking the time to speak with me today. I'm researching regional car-buying trends for my capstone project. Could you start by sharing how long you've been in the automotive sales industry?

Mentor: Of course! I've been selling cars here in British Columbia for just over 5 years now. Believe it or not, time flies when you're talking horsepower!

Interviewer: *[laughs]* That's impressive! In your experience, what types of vehicles do customers in BC tend to lean toward? Any particular brands or models?

Mentor: Great question. BC buyers love their practicality. SUVs and crossovers are huge here: think Honda CR-Vs, Toyota RAV4s, Subaru Outbacks. The outdoorsy lifestyle plays a role. For brands, Japanese automakers dominate. Toyota, Honda, Subaru, they're household names here. But we're also seeing more interest in electric vehicles, especially Teslas, with the province pushing greener initiatives.

Interviewer: Interesting! Do you notice differences in preferences depending on where in BC you've worked?

Mentor: Absolutely. In Metro Vancouver, compact cars and EVs sell well, parking's tight, and commuters care about fuel efficiency. Head to the Interior or up north? Trucks and rugged SUVs rule. People need vehicles that handle logging roads or ski trips. Coastal communities also love hybrids, eco-conscious mindset out there.

Interviewer: That makes sense. What factors do you think most influence someone's car choice?

Mentor: Lately, the economy's a big one. With inflation and interest rates, buyers are extremely price-sensitive. But there's also strong brand loyalty. If someone grew up in a Toyota household, they'll likely stick with Toyota. Funny enough, loyalty here splits along cultural lines too.

Interviewer: How so?

Mentor: Western customers often stay loyal to both the brand *and* their salesperson. I've got clients who've bought from me for 15 years, they'll drive across town just to keep that relationship. But with Asian customers, it's more transactional. They'll shop around for the best deal, even if it means switching dealerships. It's just cultural priorities.

Mentor: Fascinating! Any final thoughts on what shapes these trends?

Mentor: It's a mix of practicality, identity, and circumstance. A farmer in Kamloops isn't cross-shopping a Tesla. But at the end of the day, trust matters, whether it's in the brand, the salesperson, or the bottom line.

Interviewer: This has been so helpful. Thank you again for your insights, Mr. Chen!

Mentor: My pleasure! Good luck with your project, and let me know if you need any other information!

[End Recording]

Appendix B. Survey Photos