A Work Project, presented as part of the requirements for the Award of a Master's degree in Management from the Nova School of Business and Economics.

Paradigm shift in the automotive market: How will premium brands deal with the innumerous challenges they will face?

An analysis to their strategy, main challenges, and a set of recommendations to maintain relevance

Luís Miguel Rodrigues Lopes

Student Number 29022

Work project carried out under the supervision of:

Professor José Miguel dos Santos Hortas Pita

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Abstract

This work project focuses on the analysis of the automotive industry, more specifically, the premium segment. This assessment includes, not only the current outlook of the market, but also the future challenges that the industry will face.
The motivation for this research lies in the key point in time which the market is, and in figuring out how brands can keep up with the revolutionary technological changes and challenges. Although the premium sector may seem a specific piece of the automotive industry, it appears like the one that not only can push forward the premium segment needs and desires but also the one that can better surpass future technological drivers and challenges and, in the end, influence the market as a whole.
The automotive industry faces an unprecedented transformation, as such, there is the need to look at the current strategies, anticipate future changes, and elaborate a new strategy able to accommodate all challenges. The trends covered range from new engines to autonomous driving, connectivity, and new mobility solutions. In order to understand the current panorama and the main challenges the industry faces, the group started by conducting intensive secondary data research as well as expert interviews.
The final goal of the Work Project is to develop a set of recommendations for premium brands to stay relevant in this industry.

Keywords

Automotive industry, Strategy, Premium segment, Mobility, Connectivity, Autonomous driving, Electric vehicles, Internal Combustion Engine vehicles, Strategy, OEM, Luxury, Supercars, Performance, Challenges, Regulations, Policies, Partnerships

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Paradigm shift in the automotive market: How will premium brands deal with the innumerous challenges they will face? An analysis of their strategy, main challenges, and a strategic roadmap to maintain relevance

Market Research Field Lab
Group Members: Diogo Figueiredo #29021 | Luís Lopes #29022 | Pedro Jacinto #25839
Academic Advisor: José Miguel dos Santos Hortas Pita

NOVA SCHOOL OF BUSINESS & ECONOMICS

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Autonomous driving enables a new roll of unattended features

New riding experiences are expected from autonomous vehicles

Features of today's autonomous driving

- **Lane Control**
- **Adaptive Cruise Control (ACC)**
- **Automatic Emergency Breaking System (AEBS)**
- **Light Detection and Raging (LIDAR)**
- **Street Sign Recognition**
- **Vehicle-to-Vehicle (V2V) Communication**
- **Object or Collusion Avoidance System (CAS)**

The chain of disruption will occur with the transition from Level 2 through Level 4

Awaited features for full autonomous vehicles

- **In-vehicle entertainment** (streaming and gaming)
- **New workspace design** (absence of steering wheel and gear joystick frees up space for work-related elements)
- **New interior design may allow for an extra people** in the average sized car
- **Artificial intelligence software in vehicle** (e.g. voice-enabled virtual personal assistant – VPA)
- **Higher security software to recognize various types of dangers other than road vehicles** (e.g. recognizing people walking on the sidewalk)

Willingness for extra pay for at least one add-on feature

Regions	Non owners	Non-premium car owners	Premium car owners
Europe	43%	42%	60%
China	86%	85%	83%
USA	57%	45%	58%

Table 2: Share of consumer willingness to pay an upcharge for at least one add-on extra feature (2019). **Source:** Accenture

97%

of consumers **show great interest in add-on extra features**, like:

- ✓ Premium vehicle entertainment
- ✓ Consumer experience
- ✓ Advertisement free ride
- ✓ Catering

Source: Tempo Automation, THALES, Accenture

Autonomous driving is expected to cater especially to younger generations and premium customers

Most premium mobility challenges relate with the improvement of riding experience

Future demand for autonomous vehicles will be intensified over the next few years

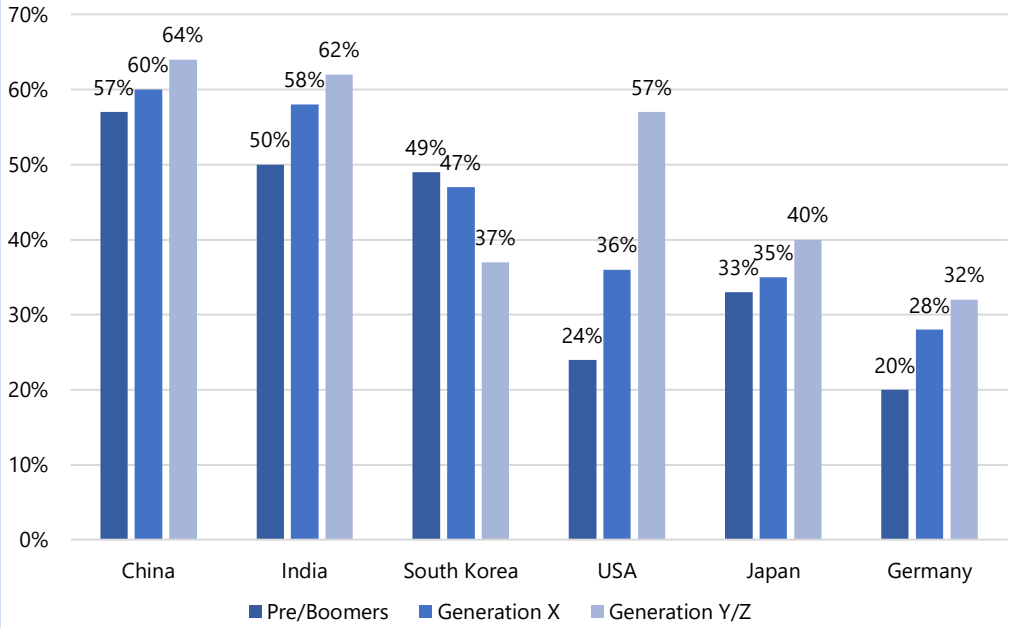


Figure 30: Consumer interest in full autonomous vehicles by generation (2016). **Source:** Deloitte

- Both **younger generations** and **premium consumers** are looking forward to the idea of using full autonomous vehicles
- The **intersection of these two segments represents the main target audience,** bringing forward an idea of certainty to the autonomous vehicles market
- **The transition from ownership to subscription services favors all types of mobility offerings**

Consumers' interest in giving up ownership in favor of autonomous mobility

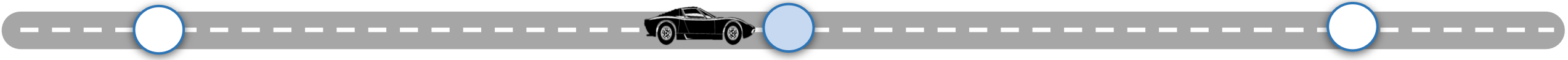
Regions	Non-premium car owners	Premium car owners
Europe	41%	55%
China	69%	78%
USA	21%	39%

Table 3: Share of consumer interest in giving up vehicle ownership for autonomous mobility solutions (2019). **Source:** Accenture

Mobility Premium Segment Challenges

- **Developing consumer-preferred mobility offerings to earn recognition status**
- **Shifting traditional premium customers away from ownership to increase mobility services demand**
- **Differentiating customer experience based on extras and features**
- **Efficiency inside autonomous design production (distribution of vehicles production between works space design or relaxation design)**

Source: Accenture, Deloitte



Context | Analysis | Recommendations

Chapter 5. Revenue Streams

How will new products and digital solutions shape revenue streams?

5.1. What will be the sales panorama in the next few years?

- How can demographics shape the selling process?
- Do new market trends and portfolio of products imply changes in selling models?
- What can be the impact of digital tools and the pandemic in car sales?

5.2. How will trends affect the aftermarket structure ?

- What is the current state of used luxury vehicle market?
- How do new growth areas affect vehicle compositions?
- What challenges will OEMs face due to the aftermarket structure changes?

Methodology

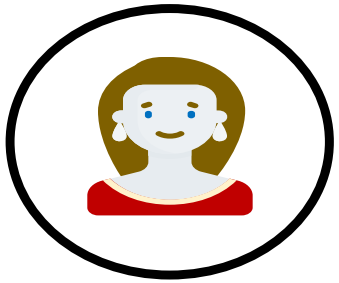
- **Primary data:** Surveys and Expert Interviews
- **Secondary data:** Salesforce, BCG, Deloitte, J.D. Power, McKinsey, Cox Automotive, United Nations Environment Programme, The Driven, Fortune Business Insights, Volkswagen
- **Literature Review:** SCQA framework

The way of selling cars is on the verge of disruption

The shift to EVs, the increasing use of technology and a younger generation of clients demand a new strategy

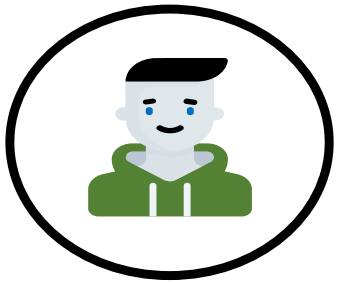
Car Buyers demographics are changing and so are preferences

- By 2030 **Millennials and Gen Z** will represent **more than 60% of the car buyers**
- These two groups have some **resemblances. However, their differences should be addressed**.



Millennials (Gen Y)
1981 - 1995

- Highly value customer experience
- Care more about bargains and discounts
- Are more loyal to brands



Gen Z
1996 - 2015

- More cautious buyers
- Expect more innovation from firms
- Gen Z is likely to return to in-store shopping

- **Dislike negotiating prices** and prefer price standardization as used in streaming platforms
- Both place a **high importance on convenience**
- **Care about the environment** and are drawn to eco-friendly products
- **Low attention spans**
- Have significant **lower trust in brands** compared to other generations

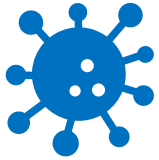
The process of car sales needs to adapt to the portfolio of products and to the market trends

Tech savvy customers

Premium clients are increasingly using digital channels to conduct their research before buying a car. When they reach the dealership, they already know which model suits their demands.

Electric cars

Faced with the reluctancy of some dealerships regarding selling electric cars, OEMs need to find ways to convince not only the customer, but also the sellers.



Covid-19

The pandemic mandated the temporary closure of several dealerships across the world. Car manufacturers turned to online sales as a solution. This crisis accelerated the virtual sales by 2-3 years.

Customer Knowledge

With the examples of data monetization by tech firms, OEMs want to start paying more attention to customer preferences. Nonetheless, throughout the years, the role of knowing the client was delegated to dealerships and many brands are realizing that this needs to change.

Source: Primary Data – Expert Interviews, Salesforce, BCG

New generations are increasingly eager to own a car and may lead the post pandemic car boom

Despite the general idea that purely online car sales are the right choice, survey results demand caution

There is light at the end of the tunnel for premium brands with the new generation of buyers

- Despite the general idea that new generations would not pursue car ownership, data shows another conclusion
- In the midst of the pandemic, a study found that:

31% Of the **people without a car intend to buy one** in the following months

45% Of those who intend to buy a new car are **millennials**

Car ownership of new generations is increasing very rapidly, and premium cars are no exception

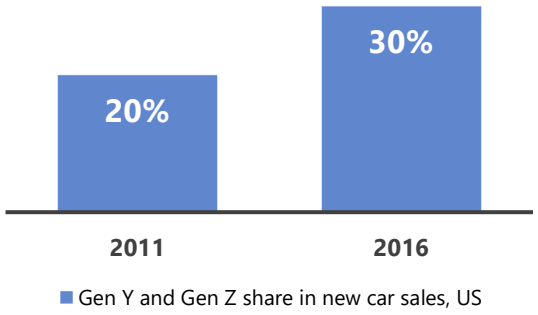


Figure 31: New generations share in US car sales.
Source: J.D. Power

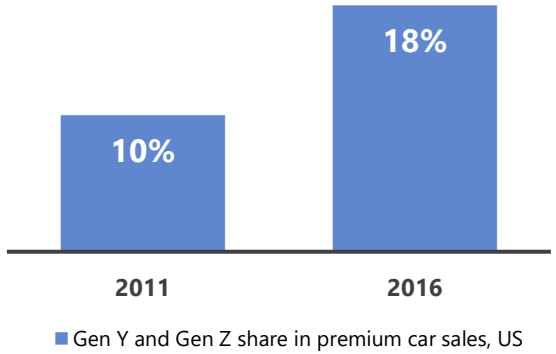


Figure 32: New generations share in US premium car sales.
Source: J.D. Power

Covid-19 reshaped the market forecasts for the automotive market

Work from home

Big city exodus

Safety concerns

- Coronavirus has made **car sharing and the use of public transportation options** that everyone want **to avoid**
- The ability to work from home, led to an abandonment of big cities to more rural areas where the **car is the main transportation used**

Currently, 100% of the customer journey online is not an option for the premium customer

75% Of the premium car buyers surveyed said **they would not be willing to buy a car purely online**

- If we look to clients with ages between **18-34 years old** this value is even higher, around **78%,** signaling that even the **younger generations are not ready to take this step**

- There are some **services that would facilitate the purchase of a car without going to the dealership:**

23,2%	19,5%	27,9%	25,0%	4,4%
Virtual reality	Contactless test drives	Personalized service	Customization simulator	Others

Source: Deloitte, J.D. Power, Primary Data – Surveys

The aftermarket profitability will change due to new services and car models

Shared mobility and technology will shape the future of the used vehicle market and components

Used Luxury Vehicle Market

Over the next 6 years, the used luxury vehicle market will grow at a **1.64% CAGR,** indicating that, at least for the immediate future, the market will continue to prosper.

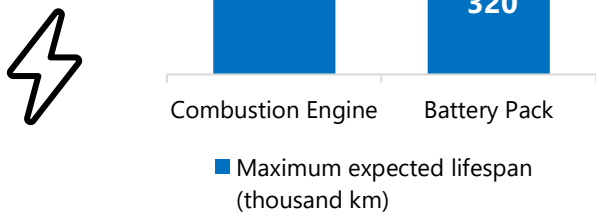


Figure 33: New generations share in US premium car sales
Source: MyEV

Expected lifespan is reduced for EVs (with conventional batteries). Additionally, **batteries also lose substantial capacity with usage and charges**.

Well-informed consumers might avoid 2nd hand EVs, which is a **substantial risk to this market in the long run**.

Component Shift

Automotive trends will trigger **a shift in components** and required skillset for OEMs. The **move from mechanical to electronical systems** means that every operation belonging to the **aftermarket** will have to **adjust rapidly**.

Combustion Engine
400 parts

Electric motor
17 parts

Electric Vehicles also eliminate the need for:

Multispeed gearboxes

Clutch systems

Shared mobility platforms will **trigger an increase in usage,** causing vehicles to **depreciate faster**. Additionally, these platforms will also be responsible for a decrease in private sales.

Technology aboard/connectivity requires more electronic components and circuits, **entailing a growing difficulty**, not only in integrating everything **upon construction**, but also in the **maintenance or repair of any of these parts**.

Source: McKinsey, Deloitte, Cox Automotive, United Nations Environment Programme, The Driven, Fortune Business Insights, MyEV

OEMs will have to adjust to different revenue streams while carefully monitoring customer loyalty

The reduction of individual revenue streams intensify the need for service diversification and digitalization

Maintenance & Repairs

The rising predominance of **EVs** means car components will be **less prone to failure**. Accordingly, maintenance revenues will decrease significantly.

This will translate in a **47% decrease in revenues by 2035.**

Wear & Tear

Possibly, the **only component that will provide additional revenues** are **tire sets** due to increasing wear (EVs' extra weight).

Other components subject to wear and tear will **decrease significantly** due to electrification. Thus, revenues are expected to **fall by 28%.**

Accidents

As autonomous driving evolves, human error prevention will ensure a **decline in the number of accidents**.

However, electrification and vehicle utilization (in China, mainly) will translate into a **significant increase in revenues**. Components (like batteries) are more expensive and are sufficient to **boost revenues by 83%** (2035).

Reusage & Recycling

EV batteries will be the main driver of recycling activities. Current revenues are almost non-existent.

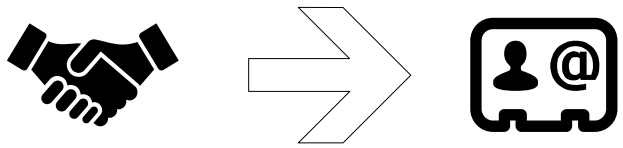
Nonetheless, brands will likely choose to take ownership of these processes in order to publicize their eco-friendly reputation.

Recycling centers will generate up to **$132 million by 2035.**

These changes give OEMs less opportunities to secure revenues as well as consumers' loyalty

These changes in the aftermarket landscape will **require OEMs to revise their revenue structure** inside the market, since it has a significant impact on automakers profit.

However, they will also result in the steady **increase of digitalization** which will translate in the **loss of several physical touch points with the consumer**.



This means that **maintaining loyalty will become significantly harder** in the most important stage of costumer service – **aftersales assistance.**

Source: Deloitte, Volkswagen

Key Takeaways – Analysis II

3. Environmen-tal concerns	**3.1. Regulation**	• Regulation is the biggest driver of **decarbonization** in the automotive sector • Current **brands' interests** are **defied** by regulation • Environmental **laws follow the same common policies across countries**
	3.2. Becoming Eco-friendly	• **Premium consumers** are getting gradually **more interested in sustainable products** • **Premium brands' difficulties in detachment from ICE vehicles may haunt them later** as younger audiences are more likely to choose eco-friendlier vehicles in their future purchases
4. Mobility solutions	**4.1. Smart Mobility**	• **Mobility as a Service** can create great value for the industry, which can grow even larger with investment in proper infrastructure • **Premium consumers are optimistic about mobility platforms**, but traditional clients' unwillingness to give up vehicle ownership may block the potential growth of this sector
	4.2. Autonomous driving	• Consumer's **safety concerns may hinder autonomous vehicles' growth**, although younger generations seem confident about the advantages these will bring • Such advantages are related with **technological advances, improvement of riding experience** and commuting **time efficiency**
5. Revenue streams	**5.1. Sales panorama**	• **Preferences of younger generations** allied with **new products and digital platforms** will shape the **future of car sales** • **Covid-19 set new market forecasts for the automotive industry** thanks to the disruption of public transportation and safety concerns • The **large majority of customers**, including younger generations, are **not prepared to buy a car 100% online**
	5.2. Aftermarket	• OEMs will have to adapt to the new aftermarket structure and **maintain loyal customers despite the lower number of touch points**

Recommendations

Given all the forces currently unsettling the automotive industry, premium automakers will have to define strategies to cope with the changing panorama. Premium brands must strategize and allocate resources effectively. For each topic discussed, there is a possible solution path that these firms can take in order to ensure that they survive and stay relevant.

Context | Analysis | Recommendations

Chapter 6. Recommen-dations

What are the main actions that premium brands can take to stay relevant in the industry?

6.1. How can premium OEMs benefit Partnerships & Cross-sector Alliances?
- On electrification?
- On technology?
- On mobility platforms?
- On autonomous driving?

6.2. How can premium brands make use of the increasing knowledge about customer preferences?
- On the sales model?
- On customer journey, aftersales and aftermarket?
- On customization?
- On sustainability?

6.3. What approach can brands take to tackle disruptive forces in auto industry?
- Regarding electrification?
- Regarding technology?
- Regarding new competitors?
- Regarding smart mobility?
- Regarding autonomous driving?

Methodology

- **Primary data:** Surveys and Expert Interviews
- **Secondary data:** McKinsey, Volkswagen, IEA, Accenture, Capgemini, CarThrottle, EV West, Forbes, BMW, J.D. Power, Financial Times, Blume Global, Oliver Wyman, BCG, Deloitte
- **Literature Review:** SCQA framework

The team's extensive analysis resulted in a set of recommendations that can be divided into three pillars

Pillars	Chapters	Recommendations
Partnerships & Cross-sector Alliances	1.1. Consolidation 2.1. Electrification	**A)** EV success is dependent of good **partnerships** in **production of batteries** and **charging stations**
	2.2. Technology 4.1 Smart Mobility 4.2 Autonomous Driving	**B)** With new **growth factors emerging from the technological industry,** automakers need to **establish alliances** to thrive in these areas
Customer-related Approaches	5.1. Sales Panorama	**C) Direct sales model** will revolutionize the way of selling cars and **facilitate customer access**
	1.2. Customer Service 5.2. Aftermarket	**D)** Creating a **seamless omnichannel journey** should be a top priority. OEMs must take a **preemptive approach to strengthen their position in the aftermarket**
	1.3. Customization	**E)** Premium brands must react to the **increasing standardization in the electric segment** and continue to **offer personalized components**
	3.2. Becoming Eco-Friendly	**F)** Premium brands should favor a **circular economy model,** since it enables firms to **reduce costs** and **improves their sustainability**
Disruptive Forces	2.1. Electrification	**G)** With the **end of government subsidies, OEMs should provide their own incentives for** the acquisition of **electric vehicles**
	2.2. Technology	**H)** Increasing **complexity and number of components** demand the **enhancement of supply chain management tools**
	2.3. New Competitors	**I)** With the mounting **pressure of new entrants**, automakers should **leverage their advantageous position** within the industry
	4.1 Smart Mobility	**J) Despite rising consumer interest, precautionary approach to mobility** platforms would be the right choice considering previous examples
	4.2. Autonomous Driving	**K) Eliminating doubts regarding autonomous vehicles** should be the **main priority** for OEMs

Cross-sector strategic alliances and partnerships are the new gold rush in the automotive market

The bet on EVs is highly dependent on battery producers and charging infrastructure developers

Overview

- The **core competencies of OEMs for future success are changing rapidly**
- The **number of deals** between OEMs and other firms **is booming. Not pulling the trigger on a deal** is risking losing the best partners to work with
- Since **premium brands have lower capital resources**, they will **not have the ability to invest in each growth area** by themselves. The best solution is to partner with others, which also **minimizes the risk of investment**
- **ACES technologies and new business models** will represent **more than 80% of the industry profit** pool

Brands must prioritize partnerships in:

Battery — **Infrastructure**

Technology — **Connectivity/AD** — **Mobility**

Battery

- The **most expensive and essential component of electric vehicles** deserve special treatment by premium brands
- **More than 40%** of the premium clients surveyed **considered autonomy and charging time two of the biggest limitations** when buying an EV
- **Exclusive deals with battery developers is a plus** for premium brands
- Premium brands belonging to large automotive groups should **leverage their higher negotiation power**

Current bet

Volkswagen and Northvolt created a 50/50 joint venture to build **lithium-ion batteries.**

Future bet

VW and QuantumScape have also been collaborating in a joint venture to enable production of **solid-state batteries.**

Infrastructure

- The **infrastructure has gained a new importance** with the **increasing sales of EVs**
- The **rollout of charging points is still too slow** and **there are not enough charging stations** for the surge of EVs on the road
- **From 2019 to 2030** the number of slow chargers are expected to rise **1572%** and fast chargers **280%,** (still not enough to meet sustainability targets according to IEA)
- According to our survey, **infrastructure is the main obstacle** for premium buyers to **purchase EVs**
- Premium brands must focus on **partnerships with supercharger producers**

Source: McKinsey, Primary Data – Expert Interviews, Team analysis

The development of technological equipment and software is essential for OEMs

Good partners in new growth areas such as connectivity, AD and mobility are key for premium brands

Technology

- **Digital cockpits and infotainment have an increasing relevance** in nowadays vehicles, overweighting the design and materials of the car interior. **90% of the premium clients** believe that **quality and features available in car software** are very important ⚠
- Premium brands need to offer a **premium, intuitive technology to attract consumers**. To achieve this, they must partner with tech companies that can deliver superb products (Aptiv, Faurecia, Visteon, among others)
- In this field **exclusive partnerships are not as important** as in other areas, since the software is **customizable**

Connectivity and Autonomous Driving

- The **complexity and quantity of components needed for connectivity and autonomous driving** entail partnerships, alliances, and M&As
- Despite the hype regarding autonomous vehicles, the only mass producer that has **leveraged** some levels of **autonomous driving was Tesla**
- **Mobility platforms** (Uber and Lyft) and **tech giants** (Google-Waymo) have **invested significantly** in these technologies and the **results** have been **disappointing**
- Premium brands need to **carefully assess the amount of resources allocated** to these technologies, as well as the **partner(s) they choose to develop them with**

Toyota to buy Lyft unit in boost to self-driving plans

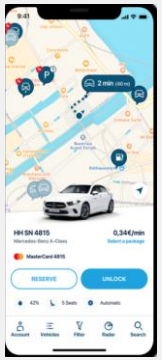
AUTONOMOUS VEHICLES

Waymo Has Partnerships With Fiat Chrysler, Jaguar, Nissan, Renault, Volvo, & Magna

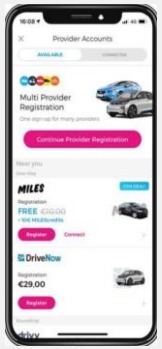
Mobility

In what concerns mobility, there can be two types of partnerships:

- **Premium brands** can have their own **mobility platforms**
  - For that reason, they can have a partnership with a tech firm that can develop an **intuitive and user-friendly app** for the car brand



- **Premium brands can sell their vehicles to third-party platforms** that aggregate different brands
  - Nonetheless, premium OEMs need to **carefully evaluate** who they **partner** with, to **avoid brand erosion**
  - In this case **exclusivity is a plus**



Source: Volkswagen, IEA, Primary Data – Surveys, Team analysis

OEMs need to realize that their current sales model is becoming obsolete

The final goal is a highly personalized sales model, adapted to each client

Using customer preferences to design a new sales model is the key to success

Clients are increasingly using digital channels in every purchase and some OEMs are still not capable to develop a new sales model that can leverage this situation

Haggling and individual negotiation have become obsolete with the increasing number of third-party platforms and price comparison websites, especially for younger generations

Premium clients demand **tailor made experiences** in the purchase process

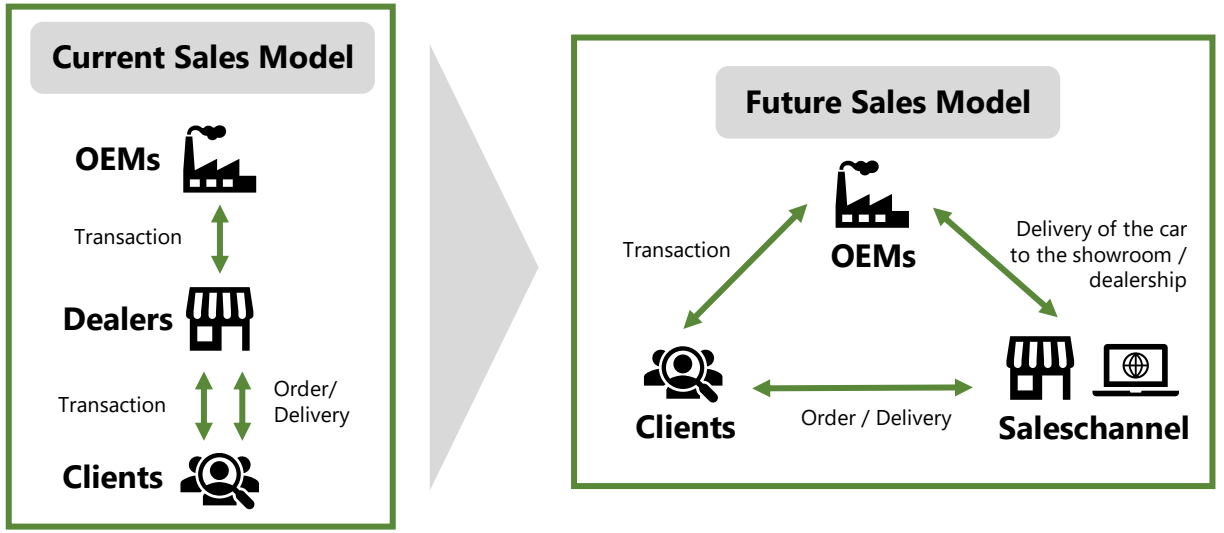
Despite the pandemic and the consequent increase in the use of online sales, the **majority of premium car buyers are still not ready** to **purchase a car 100% online**

Looking at the good examples

Tesla pioneered the online sales, the **price standardization** and the **company owned store and service center model**.

Despite all this innovation and the direction towards online sales, **83% of their customers still need to have a personal contact with the dealership before they buy the vehicle**.

The transition from an indirect sales model to a direct sales model is the wisest decision for premium brands and will allow more personalization



Gain **control over sales**

Gain **direct customer access** that will enable more **customer knowledge**

Control prices and **improve sales efficiency**

With more data available, brands should **create new products, more targeted and more personalized**

Source: Accenture, Capgemini, Primary Data –Expert Interviews, Team analysis

Building a seamless omnichannel journey is key for customer retention and brand loyalty

Car software will be an essential tool for aftersales and aftermarket

Customer journey

Blending the digital and the physical channels is a challenge, but premium brands must create a **seamless omnichannel experience throughout the customer journey**.

74%

Of premium clients surveyed expect a **differentiated and exclusive treatment when they visit a dealership**

Digital channels provide huge amounts of customer information, but there is a lot of **data dispersion. To solve this, OEMs need to build centralized data analysis centers**

OEMs' control of online and offline channels (direct sales model) will facilitate the **creation of a consistent and personalized customer journey experience**. **Transition from a product-centered industry to a customer-centered one** should be the end goal for the premium brands

Aftersales

Until mobility platforms are available, **premium brands need to find ways to stay in touch with the customer** after the purchase of an EV (less maintenance requirements).

88%

Of premium clients surveyed believe that **aftersales assistance is the most important** part of the customer service **to stay loyal to a brand**

Car maintenance updates must be delivered directly through the car software, using the available connectivity features and personalized messages. **Pick-up services** to conduct maintenance should be provided

Software updates should have dedicated assistants from the dealership in which the car was purchased, to maintain contact with the client

Premium clients must be **updated when new models or new features are available**

Aftermarket

To ensure their predominance over other players in the aftermarket, OEMs need to **establish a solid network of workshops** and **diversify service offerings.**

The car software should point customers to their own network of workshops/dealerships upon required maintenance or repair

Create incentives for the delivery of vehicles in end-of-life to facilitate recycling of parts

Source: Primary Data – Surveys, McKinsey, Capgemini, Team analysis

Customization and extras are demanded by premium clients and crucial to automakers

The increasing standardization of EVs motors and share of components are a challenge for premium brands

Client preferences allied with the profitable return of extras and customization, leave only one option to premium brands

How important are customization and extras for premium clients?

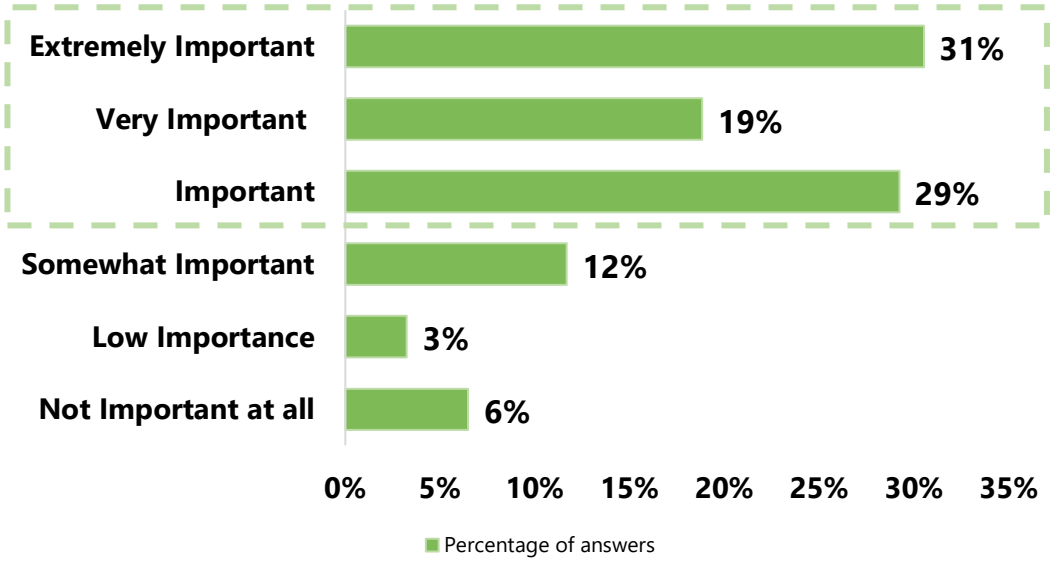
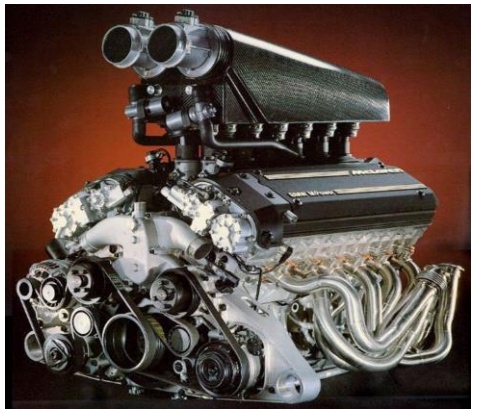


Figure 34: Degree of importance of customization and extras for premium clients. **Source:** Primary data - Survey

79% Of the car enthusiasts surveyed considered that **personalization and extras have a high degree of importance** when buying a high-end vehicle

Industry experts say that often the **return on the extras is higher than on the cars** themselves, with margins of up to 30%. **Since EVs' margins are low, extras can compensate the final profit margin of the car sale**

From engineering masterpieces to dull electric motors: new ways of differentiation are mandatory



BMW S70/2 V12 Engine.

Tesla Model S drive unit.

→ With the arrival of the **electric engines, it is harder for premium brands to stand out in terms of performance**, since even mass market brands can equip fast electric engines in their vehicles

→ Premium brands must find other ways to stand out, and **superior customization options will be an advantage**

Premium brands need to **get away from the increasing standardization** that is taking over. This can be achieved by **continuing to develop personalized extras and new tailor-made interiors**, making use of the **increasing knowledge of customer preferences**

Source: Primary Data – Surveys, CarThrottle, EV West

The moment to close the cycle has come as new generations support sustainable brands

Circular economy procedures can become the leading cost cutting policies in the industry

Consumers have shown their interest in sustainable purchase options, especially in younger generations

Degree of interest in premium cars whose interior components were made from reusable materials

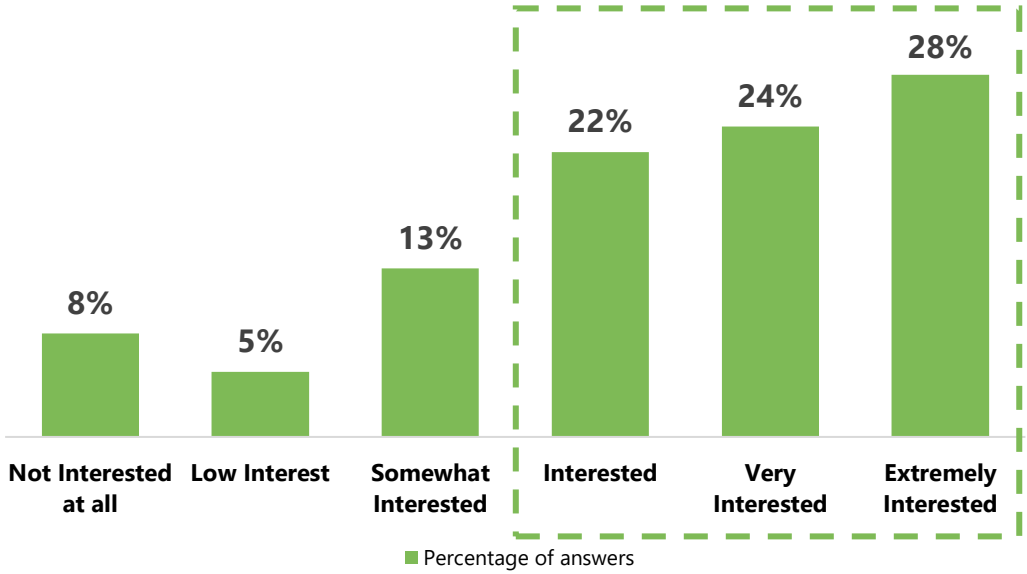


Figure 35: Premium clients' interest in cars with interior components made from reusable materials.
Source: Primary Data - Surveys

74% Of the car enthusiasts surveyed showed strong interest in **interior components made from reusable materials in high-end brands**

New generation of drivers are very conscious about environmental concerns and sustainability. Consumers tend to move away from brands unwilling to respond to these issues

Circularity can be deployed in three industry levels

Energy	Materials	Lifetime
Renewable sources	Decrease in waste	Increased vehicle lifecycle
Used in production and to power EVs	Recycling and reusage of car elements	Resource efficient parts, designed to last longer

Circular economy measures will boost sustainability recognition, but will also translate into economical gains

- **Build recycling centers** to give a new life to used and damaged parts, and **connect them to the production line**, closing the cycle
- Ensure that **production line is 100% carbon neutral** and that **suppliers comply with** automakers' **sustainability goals**
- Give the clients the **option to select recycled** or **sustainable materials** in car interiors

Source: Primary Data – Surveys, Accenture, Team analysis

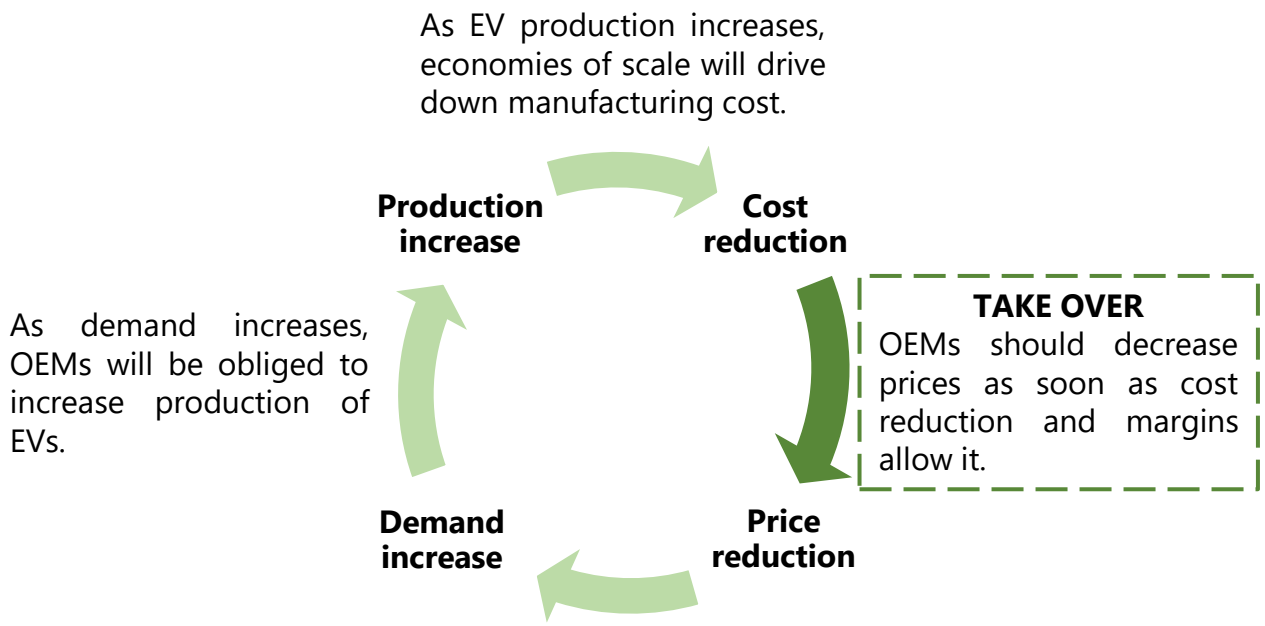
The main incentive to EV acquisition will be a price reduction

Brands must be creative to get customers to transition to EVs

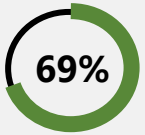
OEMs need to take control over incentives

Price premiums on EVs are still too high, even for the luxury segment. Unless consumers are EV or sustainability enthusiasts, they will not be willing to pay a premium for a car with the same performance standards (as ICE vehicles) and charging disadvantages. ⚠

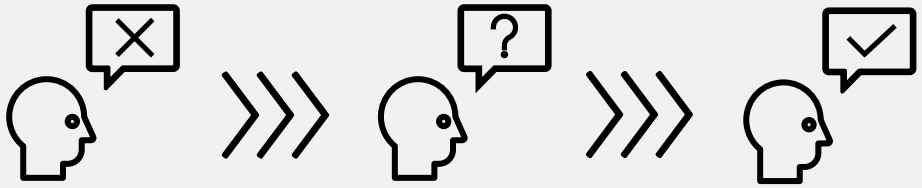
Government incentives will eventually be terminated and, by then, OEMs will have had to take measures by lowering prices.



Getting customers to drive EVs should be a priority



Of the car enthusiasts surveyed said they **would consider purchasing a 100% electric vehicle** ⚠



Turn No into Maybe

- Brands should **develop campaigns to get consumers to drive EVs** (especially for those who are not considering acquiring one). Customers that have driven EVs are **3x more likely to acquire one in the future**

Turn Maybe into Yes

- **Publicize electrics' unique qualities and educate consumers on their misconceptions of these vehicles**. EVs are exciting vehicles that offer clear advantages over ICE vehicles
- The missing piece is to eliminate downsides. Premium brands should **consider offering incentives** such as power walls, additional free periods for software subscriptions, a set of extras for free or reduced price, **while downsides remain**

Source: J.D. Power, Forbes, Primary Data – Surveys and Expert Interviews, Team analysis

Supply chain management is getting increasingly harder as trends get amplified

OEMs should adopt new methods to enhance their supply chain management

Trends keep defying OEMs' adaptability but …

Given the evolution of the automotive industry, **supplier networks** have also been **subject to changes** over the years. Upon the **impact of discussed trends**, OEMs must, once again, **adapt their supply chains to cope** with the **current industry landscape** and better prepare themselves towards a triumphing future.

Additionally, **COVID-19 intensified the challenges** that OEMs already face when managing supply chains.

Growing number of components and individual complexity

Supplier identification

Unexpected demand shifts

Heavy investments and costs

… As challenges arise so do method improvements

Advanced analytics-based forecast models – improving the response to demand shifts and supplier delays

Risk modelling – enabling the detection of financially distressed suppliers and reduction of high-risk spending

IoT tracking of parts – facilitating storage/inventory management and optimization of scheduling

Source: McKinsey, Blume Global, Team analysis

Premium OEMs must leverage their superior capabilities to slow down new competitors

All-electric brands and tech giants are threatening to overpower established premium automakers

Established OEMs have more experience and resources in place

- **New competitors** are **riding trends** to enter the automotive market.
- **Established brands** are **losing ground** to these surging incumbents and they **must take measures** to ensure their survival within the segment.

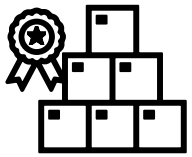
Accordingly, through their advantages over newly-found rivals, they can tighten their grip over the market.

Client Base

Sales Infrastructure

Production capacity

Technical know-how ⚠



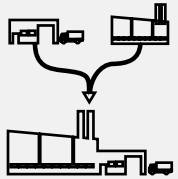
High-quality materials ⚠

Of the premium clients surveyed **elected established brands as their go-to choice if they were to buy an electric vehicle** ⚠

The road to success is shorter for established brands

New competitors are known as **EV pioneers** or great **software designers,** but they **lack the assembly excellence** of established premium automakers.

- Take advantage of **emerging brands' unwillingness to adopt certain technologies** outside their skillset (Tesla & solid-state batteries)



- **Adapt current ICE-production facilities to accommodate for EVs** – allowing larger capacity & faster response to increases in demand

- **Incentivize the loyal client base to adopt new products** – boosting reputation in EVs market and creating word-of-mouth advertising

Source: Financial Times, Primary Data – Surveys and Interviews, Team analysis

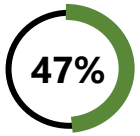
Smart mobility applications carry tremendous potential but significant risk

Until the autonomous driving breakthrough, premium brands must plan defensively

The mobility market has high entry costs but there are promising signs coming from the demand-side

Up until now, few mobility platforms have been successful. There are inherent **logistical challenges** and **capital needs** (especially with the impact of the pandemic) that **brands need to overcome to develop widely available mobility platforms**.

However, strong belief in **changing consumer sentiment** (ownership departure) and the **inevitable boom of full autonomous vehicles** will play an important role in the **acceptance of new OEMs mobility platforms**.



Of premium clients surveyed **would look favorably on using a mobility platform offered by their preferred brand over owning a vehicle**

Full autonomous vehicles are expected to generate more than $100 Million in value to mobility services by 2035

Precautionary approach is key for long-term success and short-term risk minimization

Premium brands should launch low-scale pilot plans in developed cities with higher income per capita.

- **Lower capital** resources **employed**, **reducing risk**
- **Early-mover advantage** (vs rival OEMs) – experience in operating mobility platforms, knowledge on consumers

Brands should **manage mobility platforms on a regional basis**, according to local **consumer preferences**, available **infrastructure** (roads, parking, among others) and overall **market needs**.

- **Facilitates** and **improves planning** compared to a global strategy
- Enables a more **targeted service offering**

Source: Primary Data – Surveys, Oliver Wyman, Team analysis

Safety concerns still hold the full potential of autonomous driving

The focus should not be on delivering first but on being the first to deliver well

⚠ Automakers need to take advantage of premium clients' interest but should dissipate their doubts regarding autonomous vehicles

Primary data suggests that a **large share of premium consumers** are already **interested in** the potential **autonomous driving features** but still have some **reserves about the safety** of these vehicles.

Interest

47% Of premium clients surveyed **would consider choosing mobility platforms with full autonomous vehicles services over others without them**

45% Of premium clients surveyed **would be willing to pay an extra for a car that offers autonomous driving service**

Doubt

93% Of premium clients surveyed **are not prepared for fully automated vehicles without self-driving option (cars without wheel or pedals)**

Brands must create strategies to make autonomous vehicles an attractive option for premium buyers

Do not rush the deployment of autonomous vehicles without guaranteeing their safety

Develop marketing campaigns **assuring consumers of** autonomous vehicles' **safety**

Advertise premium-tailored features to make use of the time saved in commutes (not driving)

Source: Primary Data – Surveys, Oliver Wyman, Team analysis

Key Takeaways - Recommendations

6. Path to Success

A) Without partnerships, premium OEMs will **not be able to cope with the challenge of electrification**

B) Expert partners in technological equipment and software with also **be critical** for OEMs to thrive in the remaining new growth areas

C) Facilitating customer access to provide more **personalized product offerings** can be achieved through a **direct sales model**

D) The transition between **digital and physical channels** has become more preeminent so, establishing new touch points throughout all stages of the customer journey to guarantee a **seamless omnichannel experience**, will be essential to **retain customers** and encourage their **loyalty**

E) By allying **customer interest in customization** with **the profitability of these extras**, it becomes evident that premium brands must continue to bet on car personalization options

F) Implementing a **circular economy** is a way of **solving** two problems at once: **sustainability** and **costs**

G) Automakers should take the wheel on the sale of EVs by **divulging their advantages** and **increasing price competitiveness** when compared to ICE vehicles

H) Smart vehicles bring different and **more complex** components that **disrupt the supply chain**, making its management increasingly difficult. To solve this issue, premium brands should use **advanced forecasting models** and other software tools that **facilitate** the task of **coordinating all suppliers** and parts

I) New growth areas made the automotive industry **attractive to tech giants** and **all-electric brands**. To take a defensive stance, incumbents must **leverage** their **superior capabilities** in diverse fields and preempt competitors in breakthrough technologies

J) In past experiences, **mobility platforms** displayed several **implementation problems** that require further assessment. However, the **mounting interest** from the demand side, obliges OEMs to pay attention to this service and develop **pilot projects** to avoid the risk losing this train

K) Despite presenting a huge potential for premium brands, autonomous driving still needs to overcome the **safety concern**. Until then, brands should **not rush its implementation**

Overall Takeaways Visual Diagram – Wrap Up To Our Story

Context

- Performance of the segment
- Acyclical behavior
- Relevance of the segment
- Scarcity of studies in the segment

Analysis I

- Consolidation
- Customer Service
- Customization
- Electrification
- Technology
- New Competitors

Analysis II

- Regulation
- Eco-Friendly
- Smart Mobility
- Autonomous Driving
- Sales Panorama
- Aftermarket

Recommendations

- Partnerships & Cross-sector Alliances
- Customer-related Approaches
- Disruptive Forces

Overall Key Takeaways

Sections	Chapters	Key Takeaways
Analysis	1. Realities of the premium segment	• **New growth areas** are **increasing the need for partnerships** and alliances in the premium automotive sector • Premium clients place a **high value on customer service** and brands can **leverage the economic value** of a delighted customer • **Customization** and **extras** are **key to seduce premium customers**
	2. Emerging Trends	• **Despite some limitations** (prices, charging and capital requirements), there might be a **solution for EVs in the horizon** (solid-state batteries) • **Technology** has become an essential part of vehicles and will be the **main driver for value creation** • **New competitors from various industries** are taking the market by storm, **threatening established players**
	3. Environmental concerns	• The strictness of **environmental regulation will push** brands to find more **sustainable paths** like circular economy and reduction of emissions • Brands should **allocate their resources** to premium **eco-friendlier vehicles** as their future looks bright
	4. Mobility	• **Mobility platforms can be a success** in the premium sector with the **right service offerings** • There is **rising interest** surrounding the introduction of **autonomous vehicles** in the automotive market, but **safety concerns** remain **unsolved**
	5. Revenue streams	• The future of automotive sales will be **dictated by new products** and **digital platforms,** but most **consumers are not prepared to buy a car purely online** • New growth areas will **limit** aftermarket **revenues** and **complicate** the task of **maintaining customer loyalty**
Recommendations	6. Path to success	• **Partnerships** will **bring great benefits** to premium OEMs in various ways • The **way of selling cars should transition to a direct sales model** where OEMs have full control • Increasing **personalization** in the **customer journey** and the **maintenance of direct contact** with the clients **will be essential** for premium brands • OEMs must **take over EV incentives** to get a tight grip on the market and **keep their advantage over new** entrants • **Establishing a circular economy** will be essential to **have competitive pricing** and a **sustainable image** • **Despite the excitement** around smart mobility, firms should focus on pilot projects rather than large scale plans