



Evolving Trends in Electric Vehicle (EV) and Automated Vehicle (AV) Insurance

Index Page

Introduction

An overview of the research focus on the emerging trends, challenges, and prospects in the insurance landscape for electric and automated vehicles.

Background and Industry Overview

A comprehensive examination of the current EV and AV markets, highlighting technological advancements and their implications for the insurance industry.

Rising Insurance Costs

Explores the factors driving higher insurance premiums for EVs, including repair costs and the surge in electric vehicle registrations.

Challenges in EV Repairs

Discusses the complexities involved in repairing EVs, including the high cost and time involved, and the industry's response to these challenges.

Data Gaps and Sustainability Concerns

Addresses data deficiencies in EV battery performance and the environmental impact of current insurance practices, advocating for improved data collection and repair methods.

Autonomous Vehicles

Analyses the future potential of autonomous vehicles to transform transportation and insurance models by 2035, with an emphasis on evolving driving perceptions.

Current Focus: Advanced Driver Assistance Systems (ADAS)

Examines the immediate effects of ADAS on the insurance sector, forecasting their increasing presence in vehicles and their influence on accident rates and claims.



Key Research Questions and Insights

- **Liability in Automated Vehicle Accidents:** Evaluates the confusion around liability issues in AV accidents and brokers' perspectives on insurer responsibilities.
- **Sustainability of Current EV Insurance Practices:** Investigates the unsustainable nature of current practices, emphasising the need for industry reform.
- **Factors Influencing EV Insurance Pricing for Fleets:** Identifies potential cost-saving measures for fleet insurance, focusing on the development of a sustainable parts market.

Challenges and Proposed Solutions

- **High Repair Costs and Parts Scarcity:** Proposes manufacturer collaboration to expand the parts market and reduce EV write-offs.
- **Liability in AV Accidents:** Suggests clearer regulations and insurer-automaker partnerships to address liability challenges and shape legislative processes.

Conclusion and Recommendations

Highlights the importance of collaboration among manufacturers, insurers, and policymakers to develop sustainable practices and guidelines for the growing EV and AV markets.



Executive Summary

This report delves into the evolving trends in electric vehicle (EV) and automated vehicle (AV) insurance, focusing on key challenges, potential solutions, and future outlooks. Through a comprehensive survey of 250 National, Super Regional, and Provincial insurance brokers, conducted via FWD's Broking Now commercial lines broker research panel, we sought to understand the current landscape and emerging trends in EV and AV insurance.

Background and Industry Overview

Rising Insurance Costs:

The insurance premiums for EVs in the UK are significantly higher than those for traditional petrol and diesel vehicles. As of late 2023, the average premium for EVs was approximately £1,344 (\$1,700), nearly double that of conventional vehicles. This increase is driven by the higher costs of repairs, materials, labour, and second-hand vehicles, alongside expensive claims for personal injuries. The Association of British Insurers (ABI) reported that insurers paid out £2.5 billion to claimants over the past year, with the industry currently paying out £1.10 for every £1 collected in premiums.

This rise is also partly due to the substantial growth in electric car registrations, with over 1,200,000 fully electric cars on UK roads by August 2024, representing roughly 3.5% of all cars. The increasing numbers reflect a broader market shift, with 17.2% of new cars sold in 2024 being fully electric, up from just 6.6% in 2020.

Challenges in EV Repairs:

Repairing EVs poses a significant challenge due to the high costs of components like batteries and advanced technology systems. The increase in EV numbers, from 205,770 at the end of 2020 to over 1.2 million by August 2024, underscores the growing demand for repair expertise. EV repairs are, on average, 25% more expensive and take 14% longer than those for internal combustion engine vehicles. This scenario has led many insurers to write off vehicles even after minor accidents, a practice viewed as unsustainable by 90% of brokers.



Data Gaps and Sustainability Concerns:

A significant lack of comprehensive data on EV battery performance complicates the insurance process, often leading insurers to write off vehicles rather than opt for costly and uncertain repairs. The number of plug-in cars has surged from 439,568 in 2020 to nearly 1.9 million by August 2024, now making up 5.6% of all vehicles. This growth necessitates better data on battery performance and more efficient repair methods to avoid the environmental impact of writing off EVs.

Autonomous Vehicles:

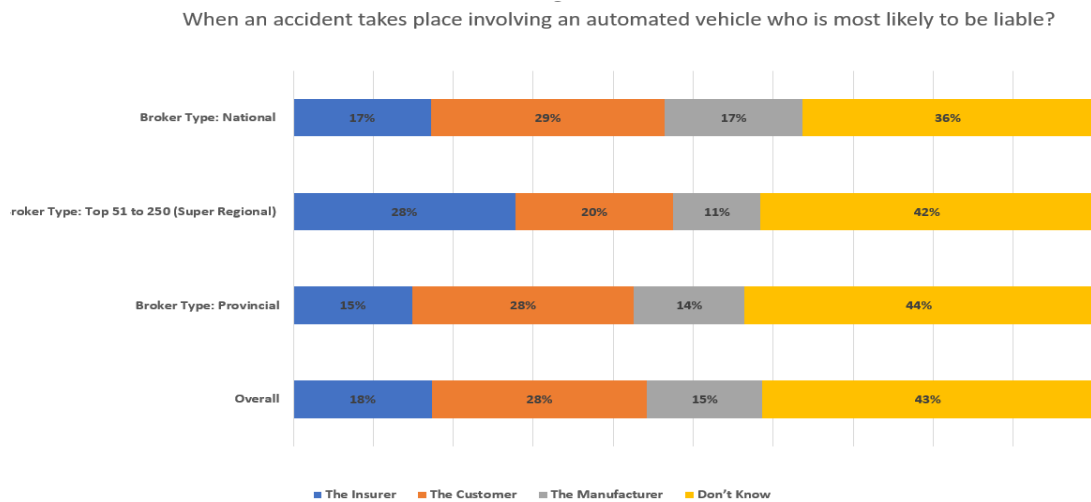
Autonomous vehicles promise to revolutionise our transportation system within the next two decades. By 2035, it is expected that up to one-third of cars on the road may be fully autonomous. These cars will not only drive themselves but will also handle routine tasks like refuelling or charging without human intervention. This evolution will significantly change how we perceive driving, making activities like getting a learner's permit less relevant, and fundamentally altering our daily commute.

Current Focus: Advanced Driver Assistance Systems (ADAS):

While fully autonomous cars capture public attention, the real game-changer for the insurance industry in the near term is the increasing prevalence of advanced driver assistance systems (ADAS). These systems, which include features like autonomous braking and automatic steering correction, are already making their way into vehicles and are expected to be present in 40% of cars by 2025 and 50% by 2030. The integration of ADAS into vehicles introduces new variables for insurers to consider, significantly impacting accident rates, claims, and underwriting models.

Key Research Questions and Insights

1. Liability in Automated Vehicle Accidents:



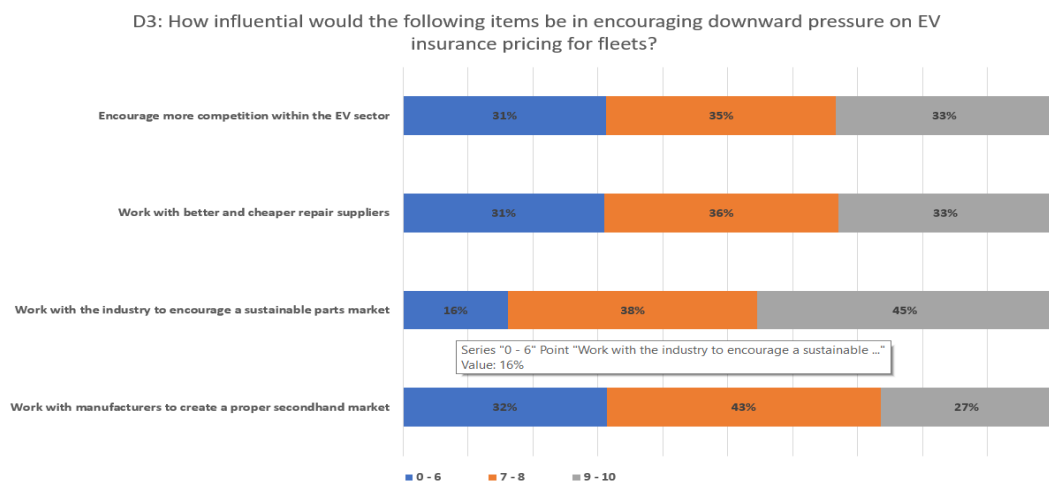
- The primary question explored was who should be held liable in accidents involving automated vehicles. Our findings reveal widespread confusion, with overall perception leaning towards the customer being liable. However, opinions differ significantly among brokers, with 30% of Super-Regional brokers suggesting that insurers should bear the liability.

2. Sustainability of Current EV Insurance Practices:



- Most insurers currently write off EVs after relatively minor accidents due to the high costs of repairs and parts scarcity. An overwhelming 90% of brokers believe this practice is unsustainable, emphasising the urgent need for change.

3. Factors Influencing EV Insurance Pricing for Fleets:



- Key factors identified that could drive down EV insurance pricing for fleets include the development of a sustainable parts market, which 45% of brokers highlighted as the most effective solution. Additionally, 84% of brokers rated this solution's effectiveness at 7 out of 10 or higher.

Challenges and Proposed Solutions

1. High Repair Costs and Parts Scarcity:

- Currently, only a few manufacturers, such as Vauxhall, Tesla, and Nissan, offer parts and repair services, and only in limited countries. Six out of ten brokers anticipate that more manufacturers will enter the parts and repair market eventually. Immediate action is required from manufacturers to develop a robust and sustainable parts ecosystem to mitigate high repair costs and reduce the frequency of writing off EVs after minor accidents.



2. **Liability in AV Accidents:**

- The liability question in AV accidents poses a significant challenge. Clearer guidelines and regulations are needed to address liability issues, ensuring that all stakeholders—customers, manufacturers, and insurers—understand their responsibilities.
- To effectively navigate these changes, insurers should collaborate with automakers to share data and insights, facilitating a smoother transition into the autonomous vehicle era. Such partnerships are essential for both industries to manage the regulatory and risk management challenges posed by autonomous vehicles. Additionally, insurers can play a pivotal role in shaping legislative processes to ensure that new laws reflect the realities of autonomous driving, thereby fostering a more coherent and effective insurance landscape.



Conclusion and Recommendations

This report underscores the necessity for a collaborative effort among manufacturers, insurers, and policymakers to address the challenges in EV and AV insurance. Developing a sustainable parts market is critical to reducing repair costs and insurance premiums. Additionally, establishing clear liability guidelines for AV accidents is essential to mitigate confusion and ensure fair responsibility distribution. Immediate action and long-term strategic planning are imperative to support the continued growth and sustainability of the EV and AV markets. Preparing for a data-driven future, redefining fault, and collaborating with automakers and legislators will be key to navigating this new era of transportation and insurance.