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The Global EV Driver Survey 2024

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Executive Summary

The 2024 Global EV Driver Survey, conducted by the Global EV Alliance (GEVA), is the first large-scale international survey (more than 23.000 respondents) exploring the experiences and motivations of battery electric vehicle (BEV) owners. Covering topics such as reasons for choosing an EV, daily and long-distance charging habits, and comparisons with combustion engine vehicles, the survey reveals a high level of satisfaction among EV drivers. A striking 92% plan to choose a zero-emission vehicle again, while only 1% would return to petrol or diesel, and 4% would consider a plug-in hybrid. The main motivation for going electric is lower running costs, followed by environmental concerns. Despite overall satisfaction, challenges remain with charging infrastructure—especially the limited availability of fast chargers, slow charging times, and unreliable stations. While most EV owners charge at home, improving public charging is essential for broader adoption. The findings underline growing EV loyalty and highlight the importance of affordability and convenience.

Keywords: Electric Vehicles, Public policy & Promotion, Consumer behaviour, Consumer demand, Charging business models

1 Introduction

The transition to electric vehicles (EVs) is a critical component of global efforts to reduce greenhouse gas emissions and combat climate change. This paper presents an analysis of the Global EV Driver Survey 2024, which gathered responses from 23,254 EV drivers across 18 countries. The survey aimed to understand the motivations, experiences, and challenges faced by EV owners. Additionally, this paper compares the survey results with the McKinsey Mobility Consumer Pulse study, which highlights a significant percentage of EV owners considering a switch back to traditional combustion engine vehicles.

2 Method

The survey was conducted via an online questionnaire between September 3 and November 3, 2024. Battery

electric vehicle (BEV) owners and drivers were invited to participate through email newsletters and social media posts distributed by the Global EV Alliance (GEVA) network. GEVA brings together 69 national and regional EV drivers' associations across 40 countries, representing over 341,000 individual EV owners [1].

The results also include responses from comparable surveys conducted in Norway (March 2024) and Poland (September 2024). For the analysis, only responses from countries with at least 100 participants were considered—covering 18 countries in total (Table 1). The global averages were weighted according to national BEV registration figures [2] .This approach ensured that responses from countries with higher BEV registrations, such as the USA and Germany, were given more weight, while responses from countries with lower registrations, such as Norway and Sweden, were weighted down.

Country	Number of respondents
Norway	15.341
Hungary	1.294
Poland	875
Austria	872
France	718
Canada	624
India	531
Netherlands	528
Sweden	348
UK	363
Costa Rica	328
Brazil	316
Portugal	258
Ireland	243
USA	193
Switzerland	157
Slovenia	156
Germany	108
Total	23.254

Table 1: Countries and number of respondents

2.1 Background Variables

The respondents selected their country of residence and language. Available languages included English, Brazilian Portuguese, Danish, French, German, Hungarian, Macedonian, Norwegian, Polish, Portuguese, Slovenian, Spanish, and Swedish. Other background variables included gender, age, EV brand, and years of EV ownership (Figure 1,2).

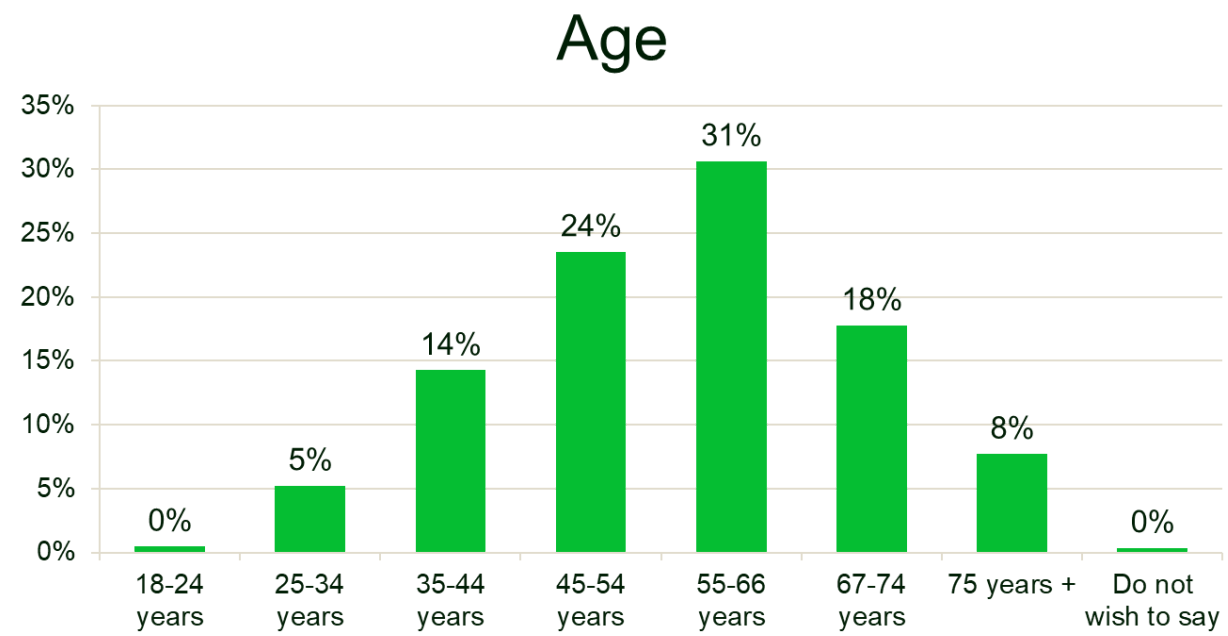

Figure 1: Age distribution of the respondents.

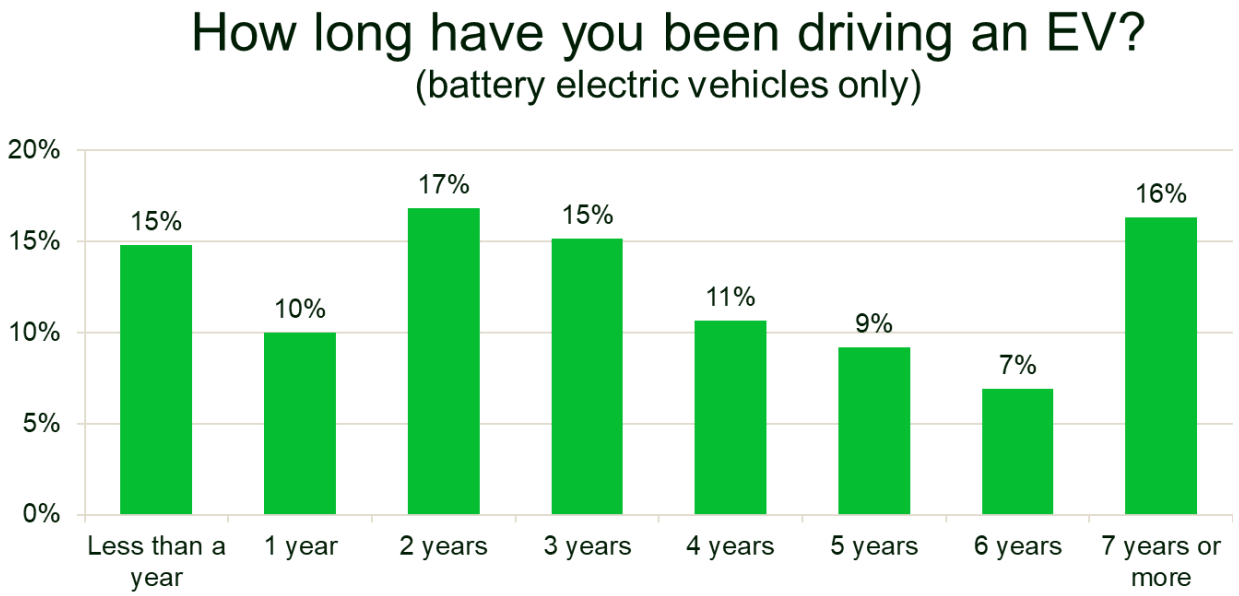

Figure 2: Experience of driving a battery electric vehicle.

2.3 Questions

Respondents were asked to respond to questions including satisfaction, range anxiety, climate concerns, reasons for EV ownership, disadvantages, and charging behaviours. In the appendix you'll find the complete list of questions.

2.4 Analysis

This paper presents an analysis of the survey data and the calculation of weighted global average results. These findings are compared to other studies, including the McKinsey Mobility Consumer Pulse (2024), which found that 29% of EV owners are considering a return to combustion engine vehicles [3].

We also compared the global averages with country-specific data from the 18 included countries to identify regional trends in EV ownership, charging infrastructure, and public policy. Insights from these early adopters can support more informed decision-making by policymakers and industry stakeholders.

3. Results

High Satisfaction Among EV Drivers

Globally, 97% of EV drivers report being satisfied or very satisfied with their vehicles. This high satisfaction rate is consistent across all countries, with only minor variations.

Future Vehicle Preferences

If drivers had to replace their EV tomorrow, the vast majority of 92 % would choose another EV (Figure 3). Only 1% would return to a petrol or diesel vehicle, and 4% would opt for a plug-in hybrid. These results demonstrate that EV drivers are highly satisfied with their choice, and that reports of declining EV popularity are greatly exaggerated. In comparison much sited McKinsey Mobility Consumer Pulse suggested that as many as 29% av EV drivers consider switching back to an internal combustion engine car.

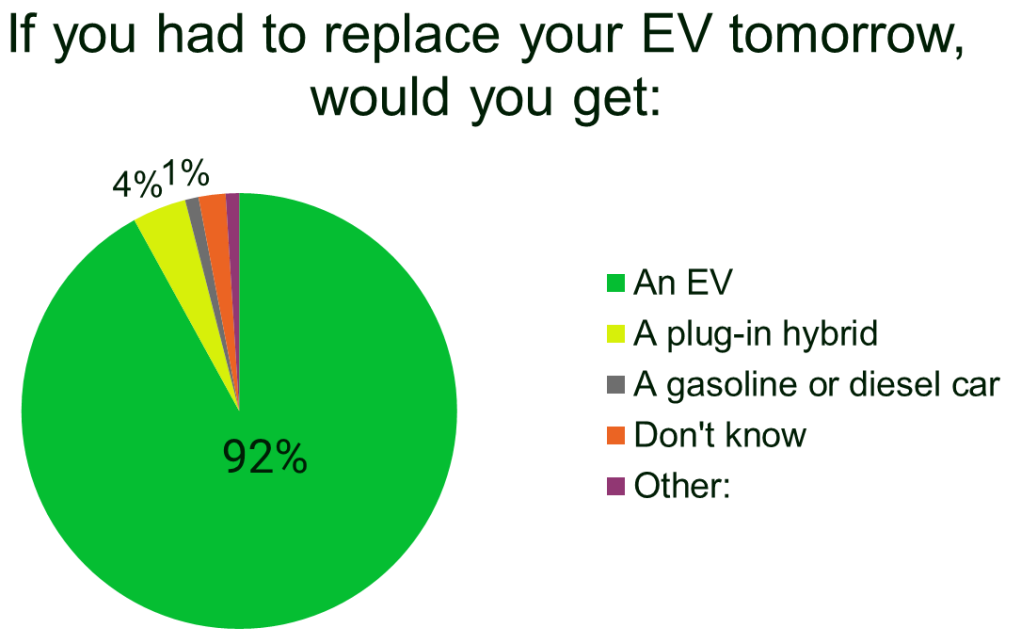

Figure 3. Future Vehicle preferences.

Country-specific insights include:

- France: 98% would choose another EV.
- India: 58% would choose an EV, while 27% prefer a plug-in hybrid.

Motivations for EV Ownership

Key reasons for choosing an EV include lower operating costs (44.9%), climate benefits (40.2%), and reduced local pollution and noise (31.8%).

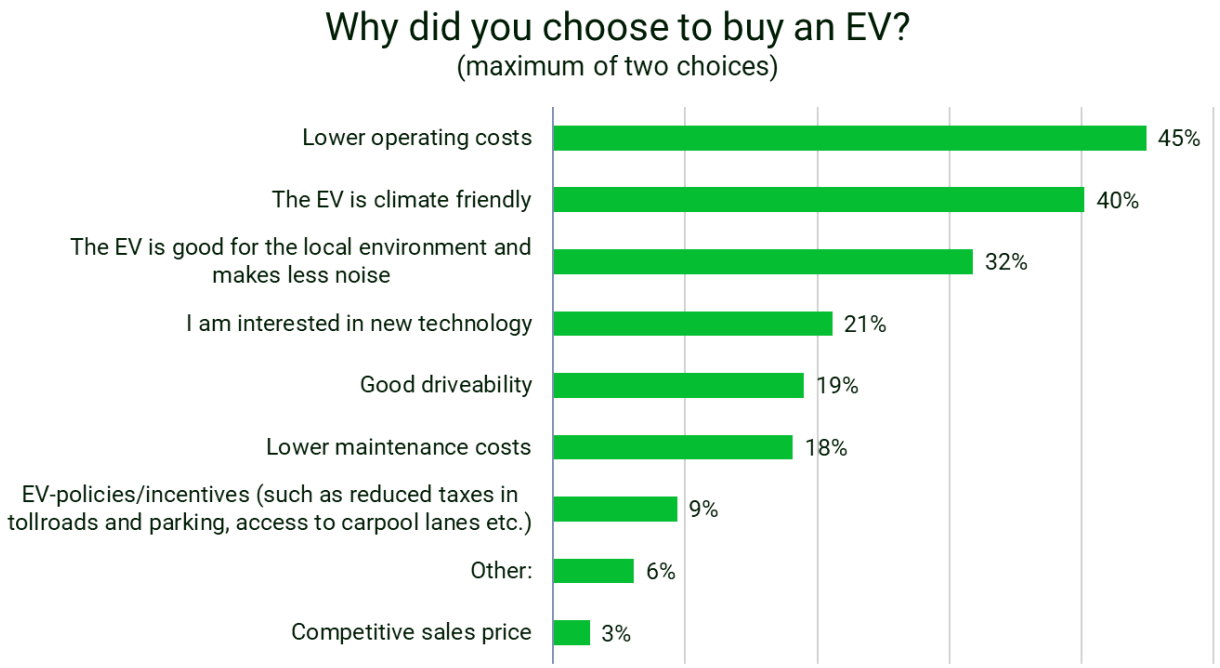

Figure 4. Reasons to choose an EV.

These motivations, however, vary by region. In countries like Norway, Costa Rica, and Hungary, government incentives play a more significant role, while concerns about local air quality and noise are especially important in Germany, Austria, and Costa Rica.

Charging Habits

Most EV owners charge at home (72%), followed by fast charging (13%), public parking (7%), and at work (7%) (Figure 5).

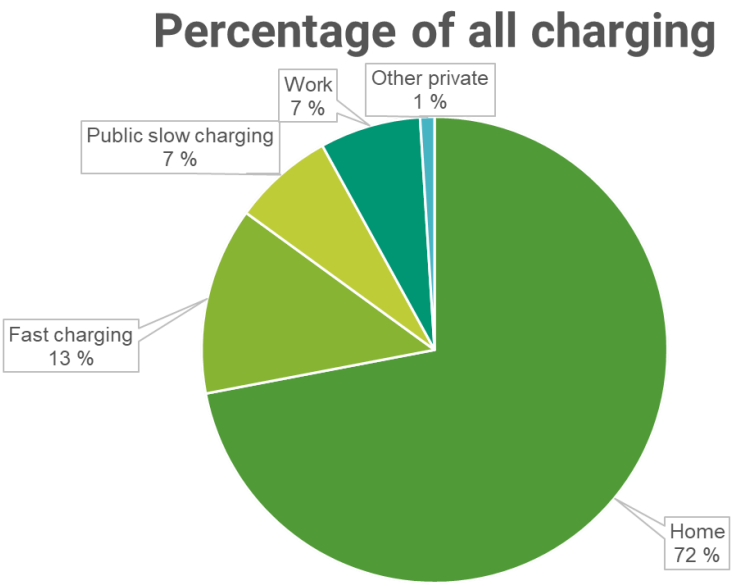

Figure 5. Share of charging methods estimated by user.

Notable differences include:

- Home charging is highest in Ireland, Canada, and Costa Rica (82%, 82%, and 81% respectively).
- Fast charging is more common in Poland (21%) and Germany (19%).
- Public parking with charging is especially frequent in the Netherlands (18%).

Challenges Faced by EV Owners

The biggest group with 39,6% of the respondents in the survey states that there are no disadvantages having an EV (Figure 6). Common issues reported by EV drivers include limited fast charger coverage (22.7%), time-consuming charging (19.1%), and chargers that are often out of service (18.1%).

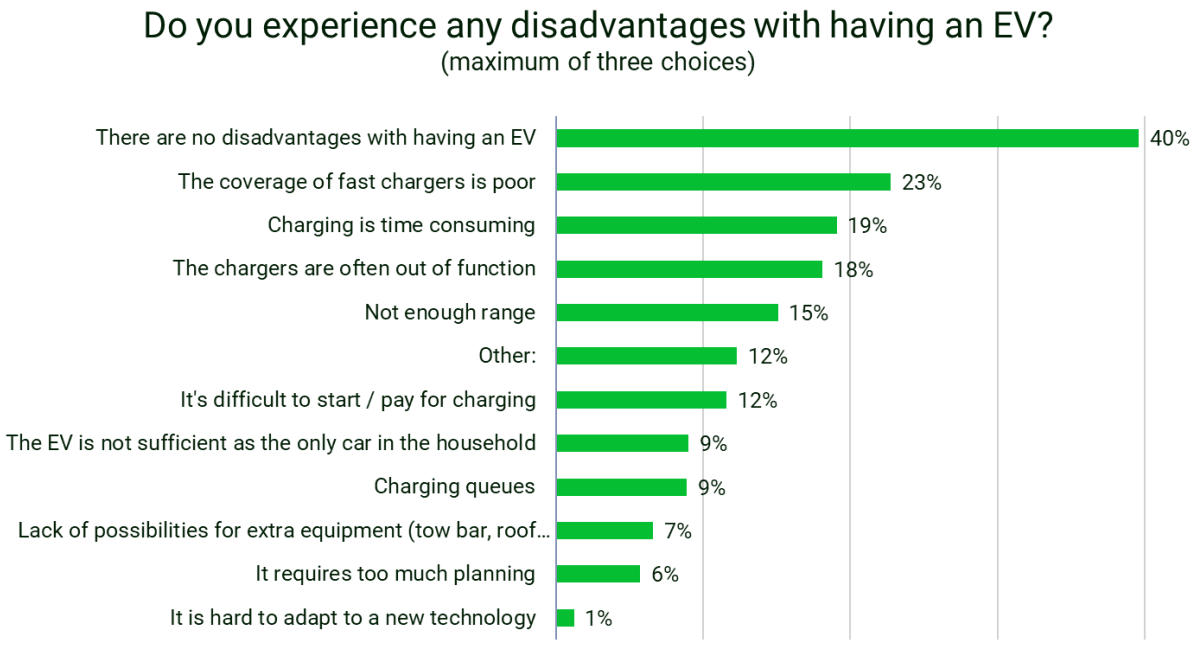

Figure 6. Stated disadvantages of having an EV.

Experiences vary significantly, with charging queues affecting 61% of EV drivers in Brazil and Costa Rica but only 6% in France and 7% in Switzerland, while out-of-service fast chargers are a major concern in Costa Rica (65%), Brazil (63%), and India (62%), yet far less so in Switzerland (14%) and France (16%).

Most EV owners experience fast chargers not working occasionally or rarely, with some differences between countries (Figure 7).

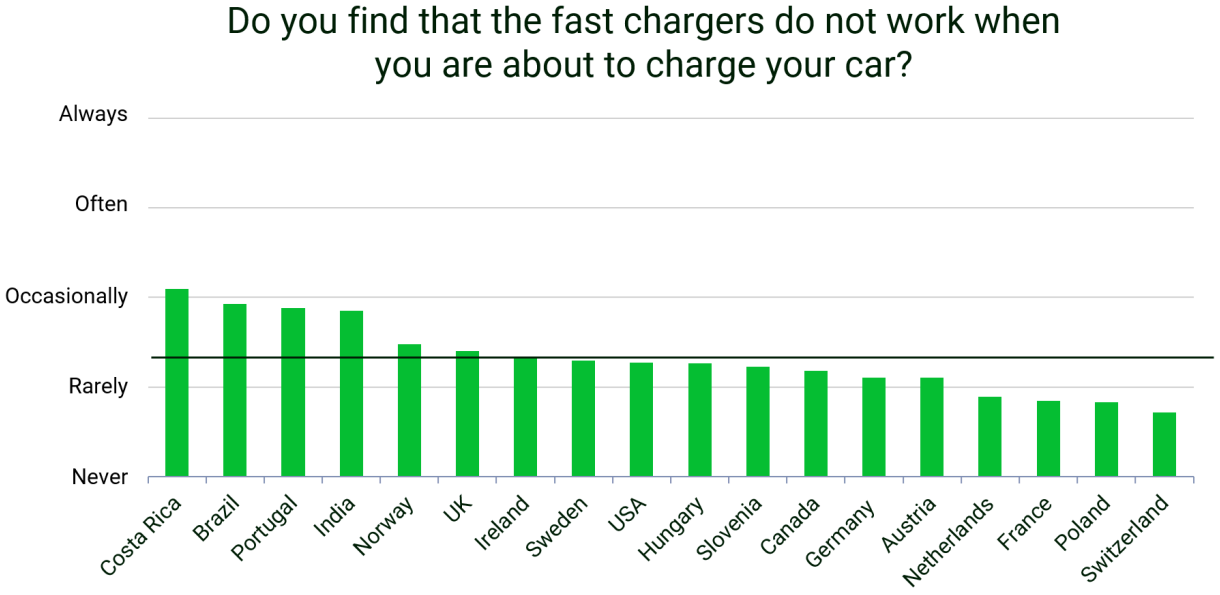

Figure 7. Experience fast chargers not working by country. Black horizontal line is the global average.

Range Anxiety and Trip Planning

Range anxiety and the need to plan for long-distance trips remain key concerns for many EV drivers. These concerns are more pronounced in India and Brazil, while they are less significant in Germany and Switzerland.

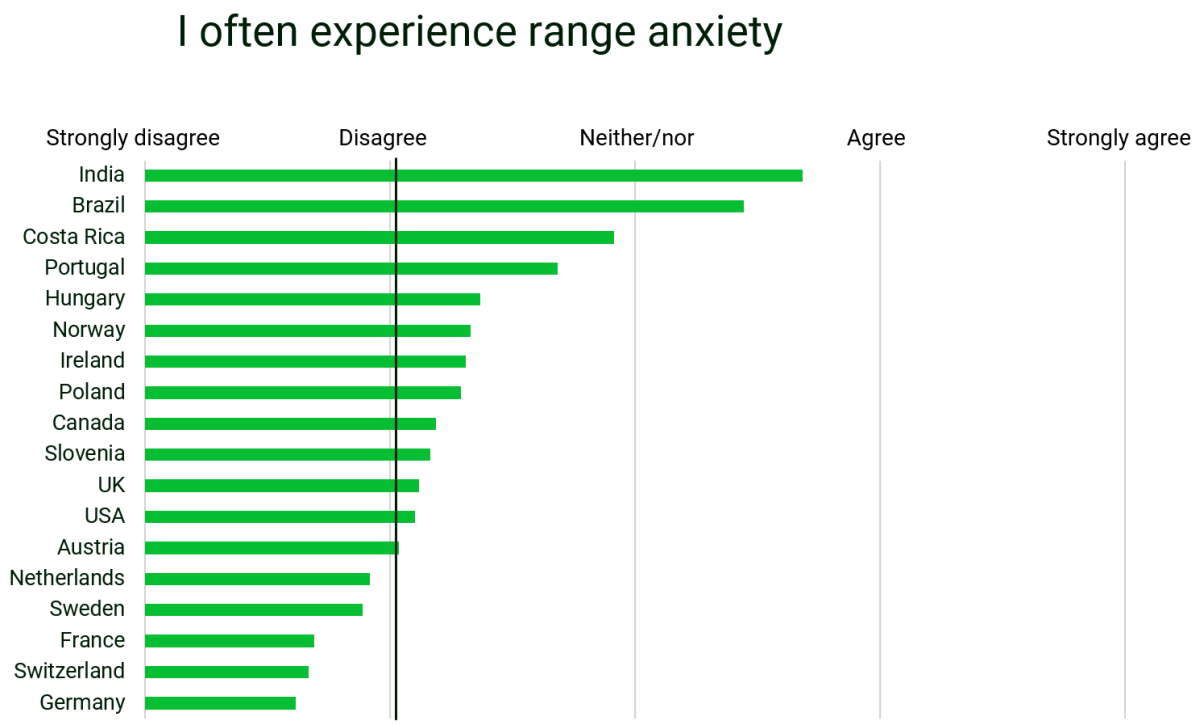

Figure 8. Range anxiety experience among EV owners by country. Black horizontal line is the global average.

Charging Payment Preferences

A vast majority (81%) of EV owners agree that fast chargers should support payment via bank cards, Apple Pay, or similar methods—without requiring app downloads or operator-specific registrations. This view is shared across all countries (Figure 9).

Figure 9. EV owners world wide want card payment options for charging.

Conclusion

These insights reveal not only a strong global satisfaction with EVs but also highlight regional differences in experiences and expectations. To support continued adoption, it's essential to invest in reliable charging infrastructure, streamline payment systems, and tailor policies to local needs.

3. Acknowledgments

The support of all member associations of the Global EV Alliance (GEVA) was instrumental in the distribution of the survey questionnaire to electric vehicle drivers worldwide. Their efforts significantly contributed to the reach and diversity of responses in this global study.

References

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[3] *McKinsey Mobility Consumer Pulse.* Mobility-Consumer-Pulse-2024_Overview.pdf, June 2024

Presenter Biography

Petter Haugneland is the Assistant Secretary General of the Norwegian EV Association (Norsk elbilforening). The association represents the Norwegian EV owners and cooperates with policy makers, the electric car industry and other organizations for the successful introduction of electric vehicles. Haugneland is also Vice Chair of the Global EV Alliance (GEVA). Haugneland has a master's degree in political science from the University of Oslo.

Ellen Hiep is board member of the Dutch EV drivers' association (Vereniging Elektrische Rijders-VER) and CEO of HiePRactief, a Dutch communications agency specialized in smart eMobility. She is also member of the Steering Committee of the Global EV Alliance (GEVA): a network of more than 69 national electric drivers' associations from almost 40 countries around the globe. GEVA facilitates global collaboration on best practices, policies, education, and other EV related initiatives.