Greener Urban Mobility in India

Improving sales of electric vehicles through sales agents' behaviour change

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This publication was authored by: Dr. Vikrom Mathur, Ashali Bhandari, Pooja Haldea, and Ronika Postaria.

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Executive Summary

The transportation sector in India has experienced a surge in sectoral emissions in the past two decades, with a whopping 224% increase between 2000 and 2019 (IEA, 2023). Though transportation contributes to only 14% of the country's carbon dioxide emissions through fuel consumption, these emissions are expected to keep rising both in total and as a proportion of total emissions. There is thus a critical need to promote low-emission transport modes, such as electric cars in the private vehicle market. Electric vehicles (EVs) can help reduce air and noise pollution caused by transportation while meeting the exponentially rising consumer demand for personal vehicles.

The promotion of EVs has two facets: purchase (by the customer) and sale (by the sales agent). This study focuses on the sales aspect, uncovering that limited knowledge of EVs among sales agents and their customer suitability biases are the main barriers to EV sales. On the other hand, test drives, prominent placement of EV cars in showrooms, experiential events, and pro-environmental communication can help sales agents promote EV sales. This brief presents the critical structural and behavioural barriers and enablers for EV sales, along with suggested behavioural interventions and policy recommendations.

Section 01: The Project

Climate change demands immediate and collective action, with behaviour change and sustainable lifestyles playing pivotal roles in addressing the crisis. For India to make substantial strides towards achieving its climate goals, it is vital to prioritise sustainable transportation solutions, such as electric vehicles (EVs). Over the years, EVs have undergone significant technological developments lowering their environmental footprint and increasing their utility (UNEP, n.d.). In 2021, the global electric car fleet was over 6.6 million (IEA, 2022). Studies from other countries have shown that EVs have the potential to reduce carbon dioxide (CO2) emissions by close to 30% (Mudaliar, 2021).

The Low Carbon Lifestyles Project at CSBC seeks to initiate behaviour change towards sustainable lifestyle choices, including low carbon transportation, in Indian cities. It aims to design interventions to redirect individual and household choices towards sustainable behaviours and technologies. The primary goal is to ensure that policy incorporates an understanding of the context of consumer choices and of local barriers to the uptake of low-carbon consumption, essential to devise levers for higher adoption.

In the domain of urban mobility, the project promotes the adoption of low carbon modes such as electric vehicles, public transportation, and non-motorised transportation. We conducted two studies on the adoption of electric vehicles – specifically, battery electric vehicles (BEVs) – by analysing related barriers and facilitators in Indian cities. One study spotlights the behavioural barriers to the purchase of EVs from the consumers' perspective, while this study focuses on the efficacy of sales agents and their ability to persuade consumers to purchase EVs. EVs are an emerging mobility technology available in India for private consumption as either two-wheelers or four-wheelers. The project concentrates on passenger electric four-wheelers (hereafter referred to as EVs) rather than two-wheelers due to the limited adoption of the former despite available incentives.

This brief on the barriers and facilitators for the sale of EVs from the sales teams' perspective is based on fieldwork conducted in EV dealerships in the Delhi National Capital Region (NCR). With its in-depth investigation into how sales agents' behaviour hinders the promotion of electric cars, leading to people choosing internal combustion engine (ICE) private vehicles, this research has great potential to be leveraged in many Indian cities and by all car companies.

Project Objective:
A key objective of the Low Carbon Lifestyles Project is to advocate the adoption of low carbon mobility modes, like electric vehicles. It promotes the sale of EVs in car showrooms, aiming for a switch from private ICE vehicles to private electric cars for commuting.

- Target Behaviour: Promotion of electric cars to customers
- Target Population: Sales agents who work at dealerships in large cities that sell EVs

Electric Vehicles' Purchase – The Indian Context

Emissions from the transportation sector are a major concern for India, especially vis-à-vis its 2070 net-zero target, public health challenges around air pollution, and environmental degradation (KPMG, 2020). India's transport sector relies heavily on fossil fuels, and despite a transition towards sustainable transportation solutions, the uptake of EVs remains slow: less than 1% of the total automobile market in the year 2020–21.

Recent research highlights a rising trend of EV adoption in India. Between 2019 and 2022, the usage of electric cars witnessed a remarkable surge of 230% (SMEV, 2023). The states of Maharashtra, Delhi, Telangana, Karnataka, and Gujarat saw the highest sales of EVs in 2021 (India Brand Equity Foundation, 2022). This trend can be attributed to well-established charging infrastructure in these regions (Livemint, 2022). The surge in EV adoption in India, in tandem with the government's support through policies and initiatives, bodes well for the growth of the EV industry in the country.

However, the Indian EV market currently offers limited options for consumers, with only 17 EV models available in the non-luxury segment in 2022, offered by the companies Tata Motors, Kia, Hyundai, Morris Garages (MG), Volvo, Mahindra, MINI Cooper, and BYD. The primary players in the electric car manufacturing market are currently Tata and MG, which collectively account for 98% of the EVs produced (Nagaraj, 2022).

A primary factor in sales is cost of the product. A comparative study (Table 1) of the same model, Tata Nexon, as an EV and an ICE reveals the cost differential. The sales price difference between a petrol and an EV model of the Nexon is INR 5,69,100. But, while the EV model is almost 2.5 times more expensive than the petrol variant, a user of the EV model who drives an average of 35 km per day can save INR 67,284 on fuel every year, resulting in significant savings over the years.

	TATA NEXON XM (PETROL)	TATA NEXTON XM (EV)
Car Cost	INR 8,79,900	INR 14,49,000
Specs	Mileage: 16 km	Driving range: 400 km
Yearly commute	12,600 km (Daily: 35 km)	12,600 km (Daily: 35 km)
Running costs per kilometre	Fuel price in NCT of Delhi: INR 95 Running cost per km: INR 5.94	Total cost of charging: 30 units of electricity x electricity rate of INR 8 per unit = INR 240 Running cost per km: INR 0.6
The annual cost to the customer	INR 74,844	INR 7,560

TABLE 1: A COMPARISION OF TATA NEXON XM PETROL AND EV VARIANTS

To accelerate EV adoption in India's road transport sector, policymakers must address price differentials through favourable taxation and continue incentives. The EV landscape in India is complex, with interconnected responsibilities of multiple players, and is constantly evolving. The central government sets national-level policies and incentives for the manufacture and scale-up of charging infrastructure, and for EV purchase (subsidies, tax benefits, loan deductions) (Bhagat, 2021; MoHI, 2022a). For instance, in all cities, a total tax exemption of up to INR 1.5 lakh is available for customers paying off an EV loan under section 80EEB of the Income Tax Act (Bhagat, 2021). The Government of India also devises regulatory incentives and frameworks, such as revised permit requirements and battery management rules, to promote EV uptake (Srivastava, 2020). Its flagship scheme in this domain is Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME); it has allocated INR 51.72 billion in the 2023–24 Union Budget for Phase II of the scheme (MoF, 2023). Through these efforts, a significant section of the public transportation fleet has been electrified. The government aims to electrify 30% of private cars by 2030 (NITI Aayog, 2019). To raise awareness and provide accurate information about EVs, the central government's NITI Aayog launched the e-Amrit web portal in 2021, though its popularity amongst users remains low.

Complying with the central government's set targets, the state governments form state policies and directives on tax incentives, stamp duty, land allocation, research and development, etc. People's access to incentives and financial aid from the government depends on state policies. Studies show that 26 states have adopted

EV policies that cover financial and regulatory incentives, and occasionally include urban planning instruments like development control regulations to guide investments in charging infrastructure (The Wire Staff, 2023). Certain states have also created awareness programmes to encourage the adoption of EVs (Government of Delhi, 2021). The urban local bodies (ULBs) provide infrastructure and regulations to support state EV policies.

Despite government incentives, EV uptake is still low. However, the future of EV technology in India looks promising: 70% of high-income households are willing to consider purchasing an electric car as their next vehicle (McKinsey & Company, 2023). Sales agents have a critical role to play in translating this interest into actual uptake of EVs since they directly influence customer decisions. They can dispel myths, educate customers, and address their concerns to boost the sales of EVs.

Choice and Electric Vehicles Usage

Literature points to several barriers in the sale of EVs. Sales representatives are often not fully informed about the various government incentives and cost-saving benefits associated with an EV (Maxine, 2019). In addition, they may not possess enough knowledge about the EV's mechanics, such as its driving range, battery replacement, and maintenance requirements. As a result, these sales agents may struggle to provide accurate information to potential customers and may even refrain from showcasing these cars to avoid answering difficult questions.

Simultaneously, supply-side barriers limit the promotion of electric cars: for example, some studies have found that customers who expressed interest in test-driving EVs were often told that the vehicles were not charged (Lunetta & Newfield, n.d.), reinforcing misconceptions about the cars' performance. Instead of promoting EVs, salespeople often directed customers towards ICE vehicles. This relative lack of interest in promoting EVs affects consumer interest and sales representatives' ability to sway purchasing decisions towards the greener option, impacting EV sales (Maxine, 2019). Further, EVs are sometimes not prominently displayed in showrooms, as in the United States for instance, which can further limit customers' exposure to them (Reichmuth & Anair, 2016).

Literature also spotlights key facilitators for EV promotion. Cogent communication about the environmental advantages of EVs, such as reduction of greenhouse gas emissions, air quality improvement, and promotion of better health, has been shown to encourage people to make the switch (Debnath et al., 2021). Efficient EV sales training for sales agents is also crucial. Studies indicate that agents who can clearly explain government incentives, driving range, the total cost of ownership, long-term cost savings, and charging operations are more likely to spur the adoption of EVs (Lunetta & Newfield, n.d.). Finally, it is essential for sales agents to organise test drives to promote EV purchases. Research indicates that improving test-driving procedures can accelerate EV adoption because it allows potential buyers to

experience the vehicle's features, driving performance, and overall feel (Herziger & Sintov, 2023).

Project Methodology

Behavioural research on the role of sales agents in promoting EVs has so far been meagre in India. This study is a step in that direction, seeking to understand the behavioural and systemic barriers that hinder sales agents in selling EVs in Indian cities and the facilitators that encourage EV adoption, and thereby designing interventions. A robust methodology was designed and deployed to achieve these targets.

- The project team began by carrying out a comprehensive literature review to identify cities in states with strong EV policies where government incentives (regulative and financial) are being implemented and which have an established infrastructure network, specifically the provision of EV charging stations in the public domain. Delhi was selected for project fieldwork given its EV policy, the number of EV dealerships and current uptake of EVs
- We then did a stakeholder mapping to understand the diversity of actors involved in the EV market, including the variety of dealerships that sell EVs and the number of showrooms.
- The team then conducted diagnostic fieldwork using mixed qualitative methods, including semi-structured interviews and mystery shopping, to understand the barriers and facilitators in the sale of EVs in Delhi.
    - We interviewed 12 respondents consisting of four managers (one at each EV dealership) to understand the sales strategies, pricing, commissions, and marketing of EVs specific to the dealership, and eight sales agents (two at each dealership) to understand their sales tactics, strategies, and frequent questions from the consumers.
    - In addition, as a reflection exercise to comprehend subjective factors, the team conducted mystery shopping (nine in total) in each dealership to evaluate how well sales agents answered questions about EVs and nudged potential consumers towards EVs. We ensured gender diversity while mystery shopping to see if sales agents responded differently to customers based on gender.
- Then, we consolidated and analysed the insights from the fieldwork to identify behavioural and structural barriers to and facilitators for the sale of EVs.
- This was followed by ideation workshops to identify interventions to improve EV sales.

Section 02: Insights from Fieldwork

Whether or not an individual consumer adopts a given sustainable behaviour depends on two sets of factors: (1) Demand side factors -- The preferences, needs, and beliefs of the individual can make her/him more likely to adopt that behaviour (such factors are demand-side facilitators of sustainable behaviour), or less likely to adopt the behaviour (demand-side barriers) and (2). Supply-side factors: The availability and accessibility of infrastructure and/or services at the systemic level make an individual more likely (supply-side facilitators) or less likely (supply-side barriers) to adopt the behaviour.

Our diagnostic fieldwork revealed 10 distinct barriers and facilitators in the sales of electric vehicles in Delhi NCR.

Demand-Side Barriers

1. *Information gaps amongst sales agents:* Our research uncovered poor knowledge among sales agents about essential aspects of electric cars. Many mystery shoppers described the agents' knowledge of EVs as 'superficial', with 44% observing that the sales agents could not adequately answer their questions about these cars. Additionally, sales agents in Delhi showed little awareness of public charging infrastructure locations, associated charging costs, and long-term cost savings.

   Regarding government incentives, none of the sales agents were familiar with exemptions for registration fees. The majority of them also lacked knowledge about tax deductions and waiver schemes. We also noted that the existing training for sales agents on electric cars is inadequate.

2. *Suitability bias among agents:* The research revealed that sales agents exhibit biases when promoting electric vehicles to customers, tending to promote EVs only to customers they consider suitable based on their biases. This can prevent interested customers from receiving the information they need to make an informed decision. Based on our analysis, sales agents tend to base their recommendations on factors such as the customer's occupation (used as a proxy for income), current vehicle, and daily commute distance (they choose to promote electric cars to customers who drive more than 80 km per day). However, these factors may not always align with the customer's actual preferences and capabilities, leading to missed opportunities for both the customer and the environment.

   Further, our fieldwork revealed gender bias against customers. During mystery shopping, we observed that all sales agents referred to potential customers as 'he', and our female mystery shoppers were asked about their husbands,

indicating that agents may not be providing equal treatment to all potential customers.

3. *Agents' biases around the driving range:* One finding was that sales agents are hesitant to promote electric cars due to concerns about the limited driving range of current models. We observed that 44% of sales agents discredited driving range statistics proven by their car companies, and some agents voluntarily provided anecdotes about getting stuck on inter-city driving trips. They also suggested being careful about the distance travelled in one charge and about using other car features to ensure the battery is not drained; their explanations showed a sketchy understanding of how EV batteries function.

4. *Agents' biases around charging infrastructure:* We found that sales agents see Delhi's public charging infrastructure as inadequate and requiring improvement before they can promote EVs to customers. This is despite the fact that city has the country's largest charging network. The agents told mystery shoppers that since the public network is unreliable, customers who cannot charge at home or those who do not have a second car (as backup) should not purchase an EV.

Supply-Side Barriers

5. *Limited models in the market:* The study found that only a few electric car models are currently available in the Indian market. During our mystery shopping exercise in December 2022, we found that except for Tata Motors, all other brands had only one EV model available (though they were expected to launch more models in 2023–24). In the non-luxury segment, only 11 EV models were available at the time of study. The limited selection hampers sales agents' promotion of EVs and may result in unmet customer preferences, rendering them more inclined to choose a non-electric car due to the greater number of options.

6. *Limited test drive opportunities:* During the mystery shopping exercise, it became obvious that very few EV cars were available for test drives, with the result that the demand for a test drive exceeded the supply, and customers were subjected to long waiting periods for one. Our observation is that when EV models were unavailable for test drives, many sales agents recommended non-EV models as these were easier to schedule. Further, sometimes the cars were not charged for test drives. These factors discourage EV sales.

7. *Limited stock of electric cars:* Our research highlighted an important factor affecting sales agents' promotion of electric vehicles: the availability and inventory of models. Interviews with managers and agents revealed that some EV models were not immediately available even in dealerships that advertise electric cars and, hence, not presented to customers. In some cases, agents

informed mystery shoppers that certain EV models would take up to two to three months to become available. Though some models were available in 10–15 days, the limited stock restricted customers' choices.

8. *Poor visibility of EV cars in showrooms:* Only four of the nine dealerships we visited as mystery shoppers had electric cars conspicuously displayed in their store window or on the lot. This indicated that electric cars are not a top priority for most dealerships. When EVs are placed at the back of the showroom or on a different floor, people without prior knowledge of EVs are less likely to notice the EV models or ask about them. Our mystery shoppers had to specifically inquire about electric car models in order to be shown any, and were then often directed to a different, less prominent floor of the dealership.

9. *Poor incentive structures:* During the qualitative interviews with sales agents, most of them were unwilling to disclose commissioning strategies, but more than one-third did inform us that no additional benefits were attached to promoting electric cars over ICE vehicles: commissions and incentives for both types of cars were the same.

   We also discovered that dealerships set low targets for EV sales, with managers revealing that EVs accounted for only 15 to 25% of sales targets. Additionally, sales agents mentioned that most customers who were interested in EVs usually came in explicitly asking for them, so they did not necessarily need to promote EVs to meet this target.

Demand-Side Facilitators

1. *Pro-environmental communication:* During our interviews with sales agents and dealership managers in Delhi, it was unanimously agreed that air pollution is a major environmental challenge. Over half of the individuals interviewed – 55% – were of the opinion that EVs could help reduce air pollution. We also found that two out of the eight agents interviewed had already made the switch from a non-electric two-wheeler to an electric one. Such personal lifestyle shifts can help agents promote the societal benefits of EVs to their customers and attract more people towards these vehicles.

Section 03: Recommendations and Interventions

This study has unveiled key behavioural and structural barriers that limit the sales of EVs in the Indian context. Utilising these insights is essential for enabling EV manufacturers and dealerships to employ a powerful set of levers to facilitate the adoption of EVs.

To activate the behavioural bridge to policy, this study employs the 4Es Model of the UK government's Department for Environment, Food and Rural Affairs (DEFRA), which aspires to enable, encourage, exemplify, and engage in moving individuals towards sustainable practices (Institute for Government, 2015). This model offers an approach to addressing behavioural and structural gaps in policy:

1. Enable focuses on providing the necessary infrastructure to make sustainable choices accessible and attractive.
2. Encourage delves into the realm of information dissemination and public awareness to motivate individuals.
3. Exemplify emphasises the importance of leading by example.
4. Engage encourages active participation and collaboration amongst stakeholders to influence policy.

Through a series of ideation workshops, this project identified seven interventions that address the behavioural barriers to EV sales, organised below in the 4Es framework:

Enable

It is crucial for decision-makers, in this case dealership managers and car companies, to recognise that external factors beyond biases and sales training can impact sales agents' abilities to effectively execute a sale. To enable agents to push for EVs, it is necessary to address the contextual and structural impediments to EV sales, for which the project proposes the following interventions:

1. *Improve EV placement in the showrooms:* One way to boost sales of EVs is by tackling the poor visibility barrier by placing them in more prominent locations in car dealerships and showrooms. The poor visibility of the car risks making it and its benefits seem unimportant. By strategically placing EVs closer to the showroom entrance, on display windows, and at central points, sales agents and dealerships can nudge customers towards EVs and stimulate their interest in the car's features.

2. *Ensure EV-specific sales agents and incentives on sales:* In the absence of promising incentive structures and low EV sales targets, agents are not motivated enough to promote EVs. With EV-specific sales agents in showrooms

and special incentives earned on EV sales, agents' interest in selling EVs will rise. This, in turn, will encourage them to address their limited knowledge and biases about EV performance, such as driving range and battery charge, enabling them to provide customers with correct information and use pro-environmental communication tools to persuade customers to buy an EV.

3. *Simplify and encourage test drives for customers:* Sales agents are often hobbled in their EV sales efforts by the limited test drive opportunities available for customers. Strategies such as ride-along vs test drives, pre-booking facility for test drives, charged vehicles in the showroom, and digital document upload and verification can help enhance this process for customers and create more interest in EVs, enabling sales agents to push EV sales.

Encourage

Information, regulations, incentives, and communication campaigns are traditional policy tools to encourage action. Bringing insights from behavioural research to these tools forming the sales strategy will reinforce its efficacy, enabling it to directly cater to agents' capabilities and commuters' interests. The project suggests the following behaviour change campaigns:

4. *Develop sales scripts and provide training for sales agents:* To counter individual biases (seldom based on factual information) which may cause sales agents to unintentionally emphasise an EV's limitations and sway customers' purchasing decision away from an EV, effective sales scripts, job aids, and training programmes are crucial. They increase sales agents' knowledge of EVs and help them communicate key details without misinformation on topics such as range anxiety, charging infrastructure, government schemes, long-term cost savings, health benefits, and environmental benefits. Further, through proper training and resources, sales agents can overcome their suitability bias and provide accurate information to a range of customers, leading to increased adoption of EVs.

5. *Develop a thumb rule guide for identifying early adopters:* The current 'need analysis' followed by agents has limitations that lead to suitability bias and promotion of EVs only to the wealthy. To improve the process of identifying potential customers, agents could be provided with a thumb rule guide that could help them quickly identify early adopters. The guide can assist agents in selecting different tools and proxy indicators for various income groups, and not simply the higher-income cohort.

6. *Organise experiential events for sales agents:* Experiential events such as expos, in-person training events, and test drives could be organised to allow sales agents to experience the driving range of an EV personally, better understand its capabilities, and build confidence in promoting it to customers.

This will help overcome their bias against EVs centring around the driving range and enhance their ability to sell electric cars to potential customers.

Engage

Promoting the sales of electric cars requires cooperation from diverse EV industry players, not just the agents. We suggest the following multi-stakeholder intervention for improving EV uptake:

7. *Create interactive space for customers to make easy EV purchasing decisions:* To help sales agents persuade customers to choose EVs, one effective approach is to provide detailed yet simplified information, overcoming the barrier of the knowledge gap of sales agents and industry jargon around EV operations. This can be done through an app, game, or physical collateral that outlines specifications such as battery range, charging time, and performance features. Additionally, personalised recommendations based on the user's specific commute requirements and driving habits could be provided through a questionnaire or survey asking users about their daily commute, charging needs, and other preferences. Overall, the goal of the stakeholders should be to make the process of choosing an EV as easy and enjoyable as possible while also providing customers with the information they need to make an informed decision.

Towards Greener Urban Mobility Through Improved EV Sales

This diagnostic brief presents novel research into key behavioural barriers and facilitators in the sale of electric four-wheelers in India, and advances a series of recommendations and interventions to improve EV sales. While some of the barriers may be context-specific, the majority are applicable across many Indian cities. The brief underscores the importance of incorporating behavioural insights in the EV sales approach of agents and dealerships. With many cities in India implementing EV policies, there is great potential to boost EV usage and adoption through such means, paving the way for a greener urban future.

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Contact us

W: www.csbc.org.in
E: csbc@ashoka.edu.in


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@CSBC_AshokaUniv