

Automobiles

Visible recovery in e2W volumes after a dent in 2QFY24

Ola Electric and TVSL continue to lead the EV market

- The e-2Ws penetration reached 4.5% in the overall 2W segment in FY23 aided by new model launches by several OEMs, increasing public awareness, and subsidies offered by both the Central and State governments.
- However, post-reduction of both the state subsidies (except a few states) and central government (FAME-2) subsidies, the overall volumes of e2Ws declined drastically in 2QFY24.
- While the reduction in subsidies dented the overall demand sentiments, 3QFY24 again witnessed a sharp uptick in e2W volumes. This was attributable to the recovery in overall 2W demand during the festivals, increasing awareness among the customers regarding TCO benefits and new launches at different price points by the OEMs.
- We analyzed the impact on e-2Ws penetration in 9MFY24, which reached 4.9% (vs. 4.5% in FY23) despite reduced subsidies. OEMs have started transitioning to this new regime without the subsidy support.
- New-age OEMs, such as Ola Electric and Ather, have already launched a toned-down version of their existing scooter models, which compromised on the battery capacity and range but did not compromise on the speed.
- Our on-ground checks also suggest traditional OEMs gaining market share, as some of the new-age OEMs lost cost competitiveness due to the withdrawal of subsidies and the lack of localization.
- Moreover, we noted that customers who prefer premium category scooters (priced above INR100k) have a higher preference towards electric scooters as they contributed ~75% of overall registrations in 1HFY24.
- We do believe that the next leg of growth in e-2Ws would be driven by the launch of more affordable variants by OEMs. This would be achievable on the back of economies of scale and an increase in localization of components led by the PLI scheme.

New launches, TCO benefits to help revive e2W demand

- The e-2W industry retail volumes clocked 727k units in FY23 (1.9x growth from FY22 levels). The phenomenal growth of the e-2W industry could be attributed to: 1) a low TCO vis-à-vis ICE; b) subsidies offered by both the state and central governments; c) favorable taxation structure by the government (GST rate at 5% with no cess vs. GST rate of 28% and an additional cess on ICE vehicles); d) PLI scheme for production and advanced chemistry cell (ACC).
- However, we noted a sharp decline in e2W volumes led by the ending of state subsidies in a majority of the states (except listed below) and a reduction of FAME-2 subsidies to INR10k/kWh by the Central government from INR15k/kWh.
- Post-reduction of subsidies, there has been a steady decline in the E-2W penetration to 4.8%/4.6% in 2QFY24/3QFY24 from 5.4% in 1QFY24 (despite avg. absolute volumes having recovered), thus indicating that subsidies played a crucial role in the consistent increase in the penetration. 9MFY24 penetration stood at 4.9% (vs. 4.5% in FY23) driven by the favorable economics of e-2Ws.
- We analyzed the e-2W registration data from Vahan to understand the impact of FAME subsidies on retails and its effect on the overall penetration of this category.

"I think subsidies should never be the underlying business case. Yes, subsidies should be ramped down or increased gradually because they change underlying dynamics of the market, products, technology, directions, and investments. So the changes should be gradual and not instantaneous. Even if they were instantaneous, it does not change the final outcome. It doesn't mean that what you're building is incorrect. I don't think I would be surprised if there was any company hoping for a perpetual subsidy regime."

Mr.Tarun Mehta
CEO Ather energy

"FAME subsidy tapering down is expected, however, the budget had announced incentives for manufacturing like PLI and Lithium cell making, which is a big boost for us"

Mr.Bhavish Aggarwal
MD & Chairman
Ola Electric

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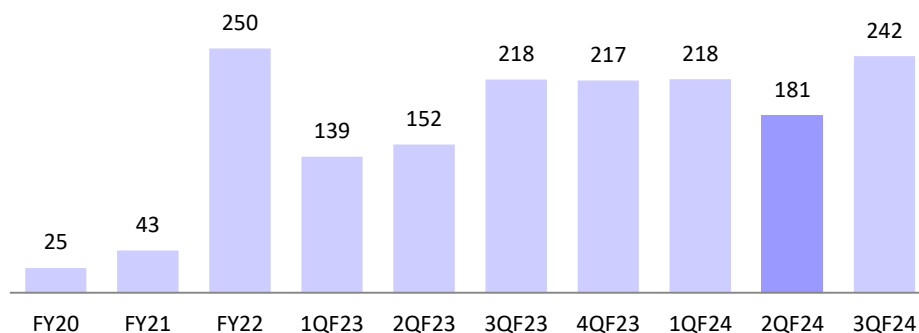
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As highlighted in Exhibit 4, the price hikes in e-2Ws were in the range of 12-36% unlike ICE 2Ws, where the price hikes on a normalized basis were less than 5%.

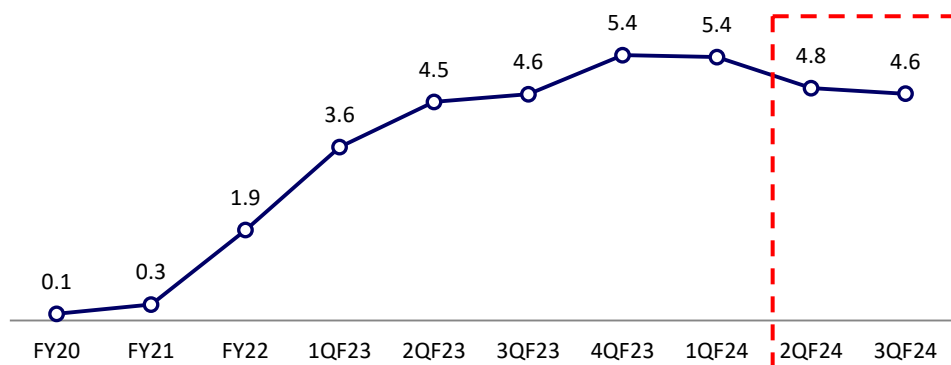
- The e-2W registrations fell from 67k units in Apr'23, and the peak of 105k units in May'23, to 46k only in Jun'23. However, 2Q/3QFY24 average volumes have seen an uptick to 60.4k units/80.7k units (vs. avg. 60.5k units in FY23).

Exhibit 1: e-2W industry volumes ('000) recovered in 3QFY24 post a fall in 2QFY24



Source: Vahan, MOFSL

Exhibit 2: Pre- and post-reduction of FAME subsidies' effect on e-2W penetration



Source: Vahan portal, shaded portion represents post reduction of FAME subsidies, MOFSL

Exhibit 3: Limited number of states offering demand-based subsidies

States	Quantum of subsidies	Maximum incentive per vehicle
Delhi	INR5k/ kWh of the battery capacity	INR30k
Assam	INR10k/ kWh (Capping for INR2kWh battery)	INR20k
Chandigarh	INR5k/ kWh for fixed battery INR3k /kWh for swappable battery	INR30k for fixed battery INR15k for swappable battery
Chattisgarh (whichever is lower)	10% of the cost of vehicle	INR150k valid for both 2Ws and PVs
Odisha	INR5k/ kWh of the battery capacity	INR20k

Source: State government websites, MOFSL

Exhibit 4: Price hikes in major models post-reduction in FAME subsidies from 1st Jun'23

Models	Price hike (in INR)	% of old ex-showroom price
Chetak	22,000	18%
iQube S	22,000	21%
Ather 450X	32,500	29%
Ampere Primus	39,100	36%
Ola S1 Air	15,000	18%
Ola S1	15,000	13%
Ola S1 Pro	15,000	12%

Source: Press articles, Company press releases, MOFSL

Feedbacks suggest a gradual return of interests

We conducted channel checks across major brands and here are our observations:

- There has been an impact of the withdrawal of both FAME subsidies and state subsidies (except in the states mentioned in Exhibit 3). However, with the launch of more affordable variants of e-scooters, the customer inquiries have started picking up. The primary reason to prefer an e-scooter over an ICE scooter is the lower cost of ownership, with the higher price of batteries being a back-ended thought for consumers. The use of public chargers remains limited as most of the consumers prefer charging at home.
- Due to the decline in FAME-2 subsidies, the new-age OEM offerings have become less competitive vis-à-vis traditional OEMs. Ampere Primus has seen a 36% price hike post-withdrawal of the FAME subsidy and is even costlier by INR11k than the standard variant of the TVSL iQube. Despite the discounting offered by the new-age OEMs like Ampere (INR4k on the Magnus Pro), retails have declined by 50% YoY in some regions.
- Among the traditional OEMs, converting an ICE scooter customer to an EV customer in case of TVSL has been easy as both the brands are housed under the same store, and iQube has been more of a family scooter (vs. Ather/Ola that have a sporty look). TVSL's wide distribution network is also acting as a catalyst. BJAUT has been able to garner customers on the back of the brand name 'Chetak', and its steel metal body is missing in rivals. Ather, despite a slight premium in terms of pricing vs. competitors, has a superior product quality and that is appreciated by consumers. Ola has been aggressive in marketing its products, and launch of affordable variants is creating a strong buzz in the market.
- In terms of inquiries, there has been a 50% conversion to sales for the walk-in inquiries, while it is less than 10% for the online inquiries. The share of FTBs is ~8-10% for EVs, while it is mostly an additional purchase in the family. The customer profiles are mostly businessmen, women, and office commuting middle-age customers. Leading banks and NBFCs are readily financing EVs and the rate of interest remains at par with ICE variants (rate of interest of 6-12%).
- There is a loyalty discount of INR7.5k/INR10k in TVSL iQube standard/S variants, while there is a discount of INR20k on Ola's S1X variant that was expected to end in Dec'23 but has continued in Jan'24 too. No discounts are there in Chetak and Ather. The inventory stands around 15-30 days, depending upon the OEM. There is no waiting period for any of the models across OEMs.
- There is an aggressive launch pipeline of new as well as traditional OEMs in CY24 (listed in Exhibit 5), indicating that OEMs would be focusing on launching products at aggressive price points with an uncertain environment for subsidies.

"There'll be more players probably coming in, (and) those which have to consolidate and fold back. The next three years will see a churn in this segment, because, subsidies also cannot continue forever,"

Mr.Niranjan Gupta
CEO HMCL

Exhibit 5: New launches planned by both traditional and new-age OEMs in 2024

OEM	Model name	Expected price (in INR '000)	Timeline
Ather	Rizta-Family scooter	130	Not disclosed
Gogoro	2 series	150	Nov'24
Kinetic electric	e-Luna	75-80	Launched
HMSI	Activa electric	110	Mar'24
Hero electric	AE-8	70	Jan'24
Suzuki	Burgman Electric	120	Apr'24
Vespa	Elettrica	90	Jun'24
Yamaha	Neo	250	Aug'24
HMCL	e-Maestro	100	Not disclosed
Okinawa	Cruiser	100	Late 2024
Ampere	NXG	135	Mar'24
BJAUT	Sunny based electric scooter cheaper than Chetak	Not disclosed	Not disclosed

Source: Press articles, MOFSL

Large headroom to grow in the e-2W space in India

- We compared the e-2W penetration in India with the major economies and have concluded that India has major headroom for growth. Domestic e-2W penetration stood at ~5% in 1HFY24 (vs. penetration of 85-90% for China in CY22 and ~10% for Vietnam in CY21).
- We believe we have reached this tipping point for e-2Ws, as post-withdrawal of subsidies, the next leg of growth for e-2Ws would be driven by introduction of affordable variants of products over the medium term, albeit with a lower battery capacity, thereby aiding the Total Cost of Ownership (TCO).
- Battery pack contributes 35-40% of e-2W cost. The prices of these packs have reduced by 88% from CY10 to CY22. This could be achieved due to the innovation of cell chemistry, increase in the number of cell manufacturers, and increase in energy density.
- We also conducted a TCO analysis as shown in Exhibit 12, and found that there are significant savings when using an e-scooter vs. a 125cc scooter of a rival brand. In our analysis, we have also shown a comparison of (with and without) a battery change in e-2Ws. A battery change could lead to a 23% increase in TCO in our analysis. Hence, declining prices of Li-ion battery packs would be crucial for the increase in e-2W penetration.

Exhibit 6: Penetration of e-2Ws in major countries

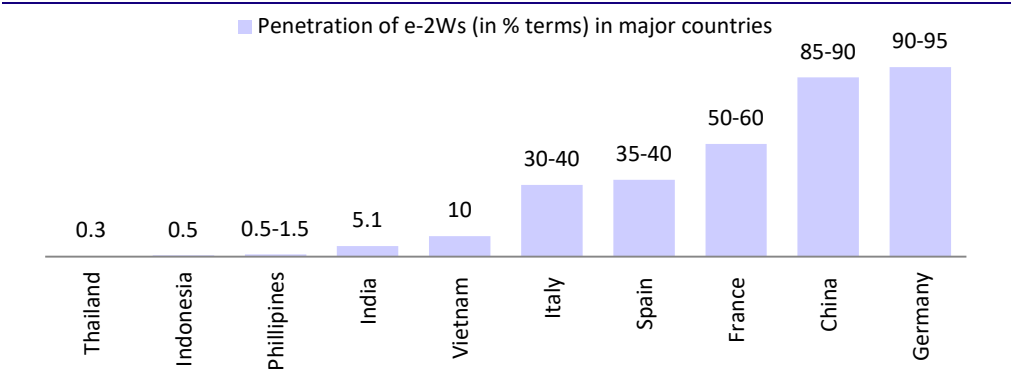


Exhibit 7: Share of EVs in domestic scooter registrations in 1HFY24

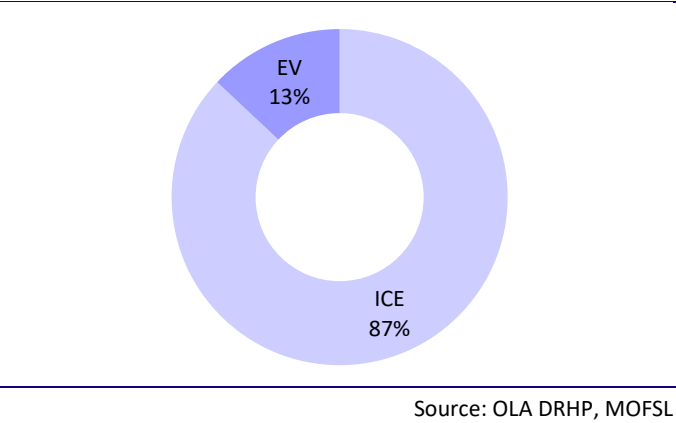


Exhibit 8: Share of EV registrations in overall scooters under different price ranges

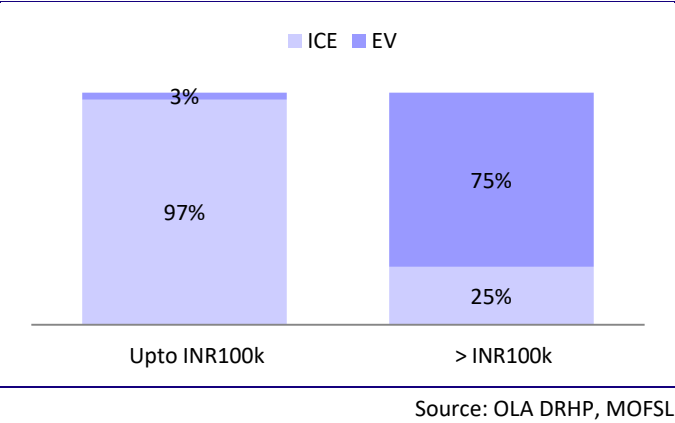
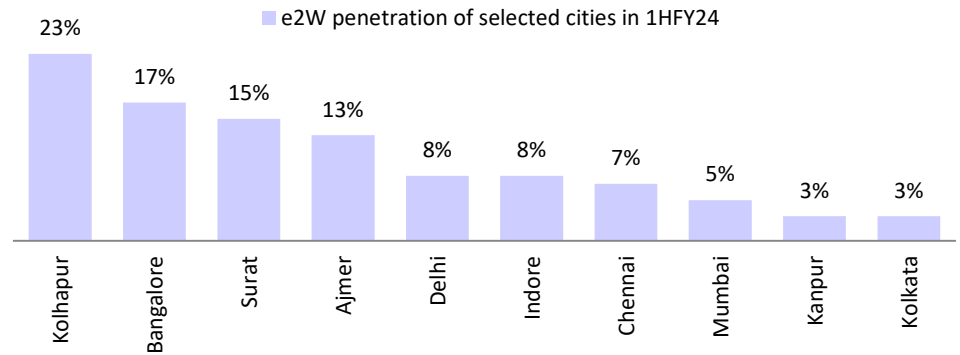
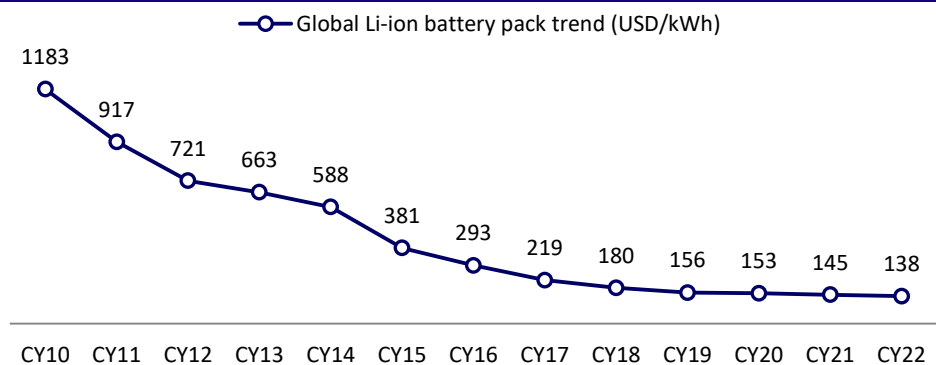


Exhibit 9: e-2W penetration is picking up rapidly even in the Tier-2 regions

Source: Ola DRHP, MOFSL

Exhibit 10: Declining prices of Li-ion automobile battery packs

Source: Ola DRHP, MOFSL

Exhibit 11: Affordable variants launched by leading OEMs compromising on their battery capacities

New variants launched by OEMs	Battery capacity (in kWh)	Range (in kms)	Top speed (km/h)	Price (in INR '000)
Ola S1 X+	3	151	90	100
Ola S1 X	2/3/4	95/141/190	85/90/90	80/90/110
Ather 450 S	2.9	90	90	110
BJAUT Chetak Urbane (with TecPac)	2.9	113	73	123

Source: Company websites, MOFSL

Exhibit 12: TCO comparison shows significant cost savings for e-scooters vs. ICE 2Ws (if there is no battery change)

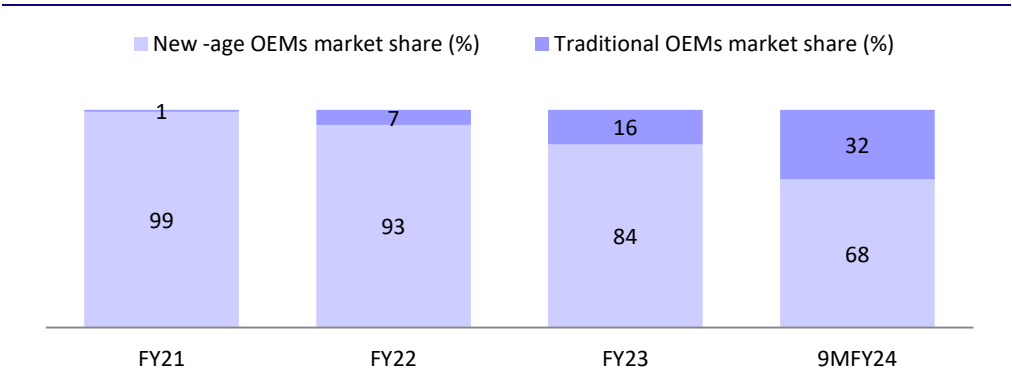
	Ola S1 Pro	Ather 450 X	BJAUT Chetak Premium	HMSI Activa 125cc
Ex-showroom Price Mumbai incl. FAME subsidy (in INR '000)	147.5	147.2	144.9	90.9
Lump sum Insurance for lifespan (in INR'000)	40.0	38.5	35.7	30.0
Road tax and other charges (in INR '000)	4.9	0.7	1.7	11.3
Total cost (in INR'000)	192.4	186.4	182.3	132.2
Total cost of ownership without resale value(in INR'000)	238.4	236.9	226.6	335.6
Cost per km	2.6	2.6	2.5	3.7
Cost per km (if battery change required)	3.2	3.2	3.1	3.7

Source: Company, MOFSL

New-age OEMs lead but incumbents not too far behind...

- In the emerging e-2W industry scenario, we studied how the market share movement is panning out among new-age OEMs (Ola, Ather, etc.) vis-à-vis traditional OEMs (HMCL, BJAUT, and TVSL).
- Traditional OEMs have doubled their market share in 9MFY24 to 32% (from 16% in FY23), while new-age OEMs lost market share to 68% (vs. 84% in FY23).
- Some of the new-age OEMs were found to be using imported products that violated phased manufacturing guidelines under FAME. The government withheld subsidies of INR12b, which were already passed on by the OEMs to the customers. An additional INR4b was withheld with the government for OEMs operating in the premium-end of the segment on allegations of mispricing to bypass the FAME norms. These challenges led to the working capital distress among some of the new-age OEMs and resulted in slowing down of production. Some OEMs even shut their shops.
- Traditional OEMs were less affected due to this as they focused on localization, which led to higher ex-showroom prices due to limited economies of scale. New-age OEMs also lost the cost competitiveness, as FAME-2 subsidies were reduced to INR10k/kWh from INR15k/kWh (or subsidies were reduced to 15% of the ex-showroom prices from 40% of the ex-showroom prices).

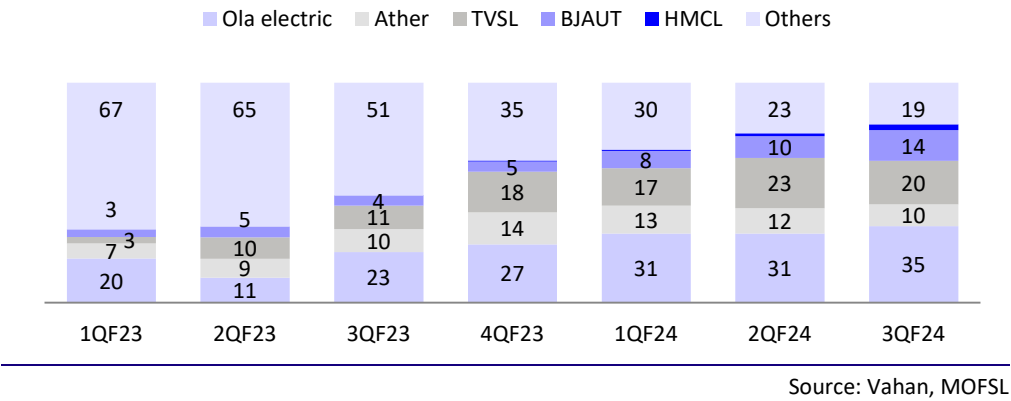
Exhibit 13: Traditional OEMs catching up new-age OEMs



Source: Vahan, MOFSL

- Ola Electric is leading the e-2W market with a consistent market share of 33% in 9MFY24 (vs. 21% in FY23) with TVSL/BJAUT following at 20%/11% (vs. 11%/4% in FY23). Ather’s market share has remained constant at 11%. HMCL being a late entrant with the Vida has a market share of just 2%.

Exhibit 14: Ola Electric has gained market share; TVSL/BJAUT catching up



- We also analyzed the market share movement among new-age OEMs, where Ola Electric remains a market leader with ~48% in 9MFY24 (vs. 25% in FY23). Ather is at the second place with a 17% market share (vs. 13% in FY23). Both Ampere and Hero Electric have lost market shares and stood at 11%/3% in 9MFY24.
- Among the traditional OEMs, TVSL/BJAUT lead with 61%/33% market share in 9MFY24, while HMCL is at 5%.

Exhibit 15: New-age OEMs' market share led by Ola...

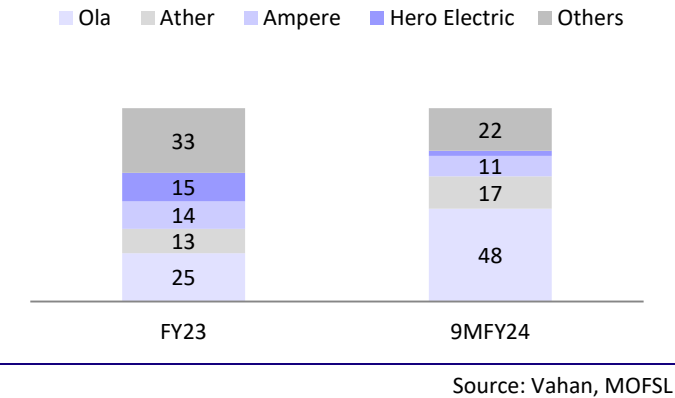
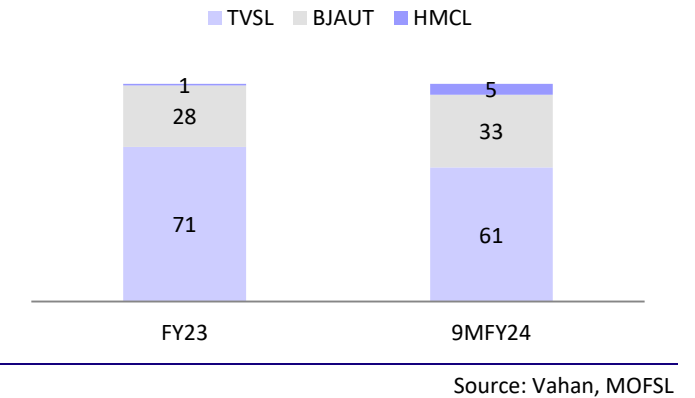


Exhibit 16: ...while TVSL is a leader among traditional OEMs



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