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Will EVs take off in Malaysia?

The Star, Malaysia



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**Driving
the *EV*
transition**

Electric vehicles are increasingly popular due to environmental concerns, but can they truly attain mainstream adoption?
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AUTOMOTIVE

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THE electric vehicle (EV) industry has a lot of ground momentum driving its growth and adoption globally, but there are still key chokepoints that could impede any widespread adoption locally – at least for the moment.

No doubt, the EV sector is still touted as the biggest shift in the automotive industry that is still in progress since the development of the petrol internal combustion engine (ICE) which took off in the 20th Century.

Apart from the promise of vehicles powered by clean energy, EVs are by and large still bought by the top-20 income group in the country due to affordability issues, arising from the current taxation structure and limitations put in place to protect the local automotive supply chain.

It will likely continue to be this way at least until Proton Holdings Bhd and Perusahaan Otomobil Kedua Sdn Bhd or Perodua launch their own EVs and the government eventually opens this space up to more competition, which may then drive further growth in EV sales.

This may provide a hint of what may be to come for the EV industry locally and how this might challenge and eventually alter the outlook for ICE vehicles and its supply chain ecosystem in Malaysia.

At present, China is seen as the prime country mover of the global EV industry on its ability to change and challenge the industry's status quo.

According to the International Energy Agency or IEA in its *Global EV Outlook 2023*, China dominates global sales of EVs and accounted for around 60% of global electric car sales last year.

More than half of the electric cars on roads worldwide are now in China, while Europe and the United States come in at second and third.

Of late, the industry in China has seen fierce price wars, with recent EV cars being priced from as low as US\$9,700 for the new *BYD Seagull*.

It is likely that prices of such cars would continue to drop even further, especially if EV batteries become more efficient and cheaper in the future. Batteries presently make up about half of the selling price of an EV.

The recent decision by US-smartphone maker Apple Inc to abandon its plan to build EVs only highlights the risks it is avoiding to compete in a space which is seeing a strong price war globally.

China-based smartphone and appliance maker Xiaomi's founder and chairman Lei Jun reportedly expressed he was "very shocked" at Apple's decision, stressing Xiaomi remained firmly committed to building EV cars. He Xiaopeng, chairman of Guangdong-based carmaker Xpeng, expressed similar sentiment about Apple's decision to abandon its car plans.

Xiaomi recently launched a sport utility vehicle (SUV) in China, code-named *SU7*, at a starting price of RM141,525. The *SU7*, reportedly looks and feels similar to a luxury SUV but at half the price, with EV technology and smart features installed; and it has already attracted a long waiting line of buyers in China, demonstrating how competitive this space will potentially get, moving forward.

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Efforts to encourage the adoption of environmentally friendly vehicles are underway, but the transition is likely to be gradual



Local touch: Tengku Zafrul (second from left) at the launch of the all-new Gen EV smart #1. He says the mass production of Perodua's EV is expected to start at end-2025.



Ahmad Razlan: There are long-term benefits to BEVs beyond just the initial purchase price.

Industry analysts surveyed agree that the main driving factor for the global push towards EVs is the presumed threat of climate change and the ambition of achieving broader environmental, social and governance (ESG) goals of any particular country.

They also note the barriers to entry of the EV space have been lowered in recent years, especially for an existing smartphone maker, as battery EV cars (BEVs) are often likened to a smartphone on wheels.

Sales acceleration

China is a net oil importer faced with a longstanding issue of air pollution. This is likely a push factor for it to further grow its EV sector but it is notable that Norway, which is a net oil and gas exporter, stands out as an exception to the rule.

Due largely to a change in taxation regimes for ICE vehicles in Norway, the EV industry has grown strongly there in the last couple of years and EVs constituted 93.9% of the country's passenger auto registrations in January 2024 with BEVs at 92.1% of the month's sales figures.

Norway is the country with the highest share of EV sales in the world now, closely followed by

other European countries such as Iceland at 50% in 2023 and Sweden at 51.8% in February 2024.

The World Resources Institute notes that a common pattern is seen in EV sales where in every country, once EV sales reached 1%, they accelerated.

"This acceleration happened faster in some places than others, but all are following an S-curve pattern," it points out.

But a conducive tax or duty structure in place to encourage EVs also plays a determining role whether any take off or growth in EVs would eventually happen.

Case in point is the United Kingdom where demand for ICE vehicles has risen and EV demand has fallen after incentives for drivers buying new EVs were scrapped in 2022.

Data coming out from Europe, the frontier region for ESG-friendly policies, meanwhile, saw EV sales falling as well earlier this year as governments there stop subsidies for EV purchases and reconsider their ambitious plans to transition from ICE to EVs.

The market share for EVs in the European Union has reportedly shrunk from 14.16% last year to some 12% at the start of 2024.

Local scene

Back home, expectations are high that cheaper EVs would soon dominate the landscape and sales of the auto industry, especially once Proton and Perodua get into the EV-making business.

Proton New Technology Sdn Bhd (Pro-Net), which is a unit of Proton that's selling the smart #1 EV, says it is actively working to make BEVs more accessible through initiatives such as affordability programmes and expanding charging networks.

"Malaysians can look forward to a future with more affordable BEVs, reflecting evolving market dynamics. Current pricing strategies by industry players strike a balance between affordability and essential factors such as acceptable range and car specifications, per-

formance and ecosystem support," Pro-Net's chief executive officer Zhang Qiang tells *StarBizWeek*.

"It is foreseeable that EVs will become prevalent in Malaysia, much like in countries such as China, but this transition will take time. Several factors need to align for widespread adoption to occur," he notes.

Zhang says Proton remains committed to its vision of launching its own BEV sooner than 2027.

It believes the fast growth in the EV industry will continue this year even as it is still growing from a small base.

"The market share for BEVs has seen significant increase. The EV sales volume has increased from 3,079 units in 2022 to 11,624 units in 2023, and the market share has increased to 1.45% from 0.43%.

"Many new products like the smart #1 and Tesla Model 3 have been launched, reinforcing our belief in the market's potential for fast growth in the coming years," Zhang says.

But he also notes that the success of Malaysia's BEV ambitions hinges on factors like affordability, range and charging availability.

"While Malaysia is progressing in the BEV sector, continued invest-

ment in research and development, innovation in battery technology, and policy support for BEV adoption are needed for the country to establish itself as a regional BEV powerhouse," he adds.

He expects further deployment and development of charging infrastructure locally, thus alleviating range concerns and bolstering consumer confidence in EVs as sales of such vehicles rise.

"Collaborative efforts between government bodies and private companies ensure continuous improvement in charging networks, further incentivising BEV adoption," he adds.

Leading the change

Meanwhile, mass production of Perodua's EV is expected to start at end-2025, according to the Minister of Investment, Trade and Industry Tengku Datuk Seri Zafrul Abdul Aziz.

This is in line with Perodua's appointment as the lead in production of affordable EVs under the New Industrial Master Plan 2030.

In the completely knocked down (CKD) space for EVs, apart from Proton and Perodua, several companies have so far come public

with their plans to venture here. BYD is another major player in the EV space in the country which distributes its vehicles locally via a distribution agreement with Sime Darby Motors.

Another company, Chery Auto Malaysia will reportedly start local CKD assembly for the *Chery Omoda E5 EV* crossover in the second quarter at Sime Darby's Inokom plant in Kulim, Kedah.

While NexV Manufacturing Sdn Bhd, which is a joint venture (JV) between Malaysia-based glove maker Careplus Group Bhd and EV company GoAuto Group Sdn Bhd, will build a new energy vehicle (NEV) manufacturing and assembly plant in Rembau, Negri Sembilan.

The plant has a planned capacity of 30,000 vehicles per year wherein a-third will comprise the assembly of *Neta* models through the JV partnership.

The JV-co said it is also open to working with other NEV brands that want to assemble CKD passenger and commercial EVs or electric motorcycles in this plant.

Another company which is venturing into this CKD EV space is Bursa Malaysia-listed EP Manufacturing Bhd which has broken ground on a RM100mil semi-knocked-down facility in Melaka to scale up manufacturing operations dedicated to energy-efficient vehicles (EEVs) and EVs.

The company aims to start phase one of production in the third quarter of this year and plans to hit a production milestone of 6,000 units by the end of 2024.

"By 2026, we project to ramp up production to 30,000 units annually," its group CEO Ahmad Razlan Mohamed says.

EP Manufacturing has entered into a collaboration agreement with China's Great Wall Motor for local assembly and manufacturing of prominent GWM models such as SUVs, pick-up trucks and EVs.

It has also signed a memorandum of understanding with Beijing-based BAIC International Development Co Ltd to produce selected models of their SUVs, ICE vehicles and EVs for Malaysia and other South-East Asian markets.

With its substantial investments here in this space, Ahmad Razlan also expects BEV to be the future of cars in Malaysia and expects sales of EVs to be on a significant growth trajectory in the near future.

"The significant growth anticipated is despite the current price advantage of ICE vehicles. The global shift towards sustainable transportation solutions, coupled with increasing awareness of environmental concerns and government initiatives to promote clean energy adoption will continue to drive the demand for BEVs," he says.

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Zhang Qiang



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He points out that a total of 10,159 passenger and commercial EVs were sold in Malaysia last year, from 2,631 units sold in 2022.

"The number of hybrid vehicles sold in 2023 was 28,055 units (up from 2022's 19,988 units).

"Both fully electric and hybrid cars combine to give a total number of 38,055 electrified vehicles sold in Malaysia in 2023. We can see the rising demand," Ahmad Razlan says.

"There are long-term benefits of BEVs beyond just the initial purchase price because BEVs offer lower operational costs, reduced maintenance requirements and contribute to a cleaner environment," he adds.

He also envisages a time when EVs would become more affordable eventually in the sub-RM100,000 range, especially when battery technology advances and economies of scale drives down production costs.

"We understand the importance of affordability in driving widespread adoption of EVs.

"While it's difficult to predict exact timelines, I firmly believe that the foreseeable future holds promise for making EVs more accessible and competitive in the market, particularly in the CKD segment," he says.

EP Manufacturing notes it is also seeing a positive uptake of its BEV two-wheelers called *Blueshark* with local sales rising, especially in the logistics

Better battery technology vital

and food delivery industries.

"However, it's crucial to acknowledge that the full realisation of the potential of electric two-wheelers hinges also on the development of supporting infrastructure, particularly charging and swapping stations.

"*Blueshark* currently has 15 battery swapping stations across the Klang Valley and targets to expand this to 50 by the end of 2024," Ahmad Razlan says.

Thus, it is becoming apparent that the widespread availability of charging stations, quicker charging times and improvement in battery technology will be the main factors that hold the key to advancements in the local EV sector.

Pro-Net's Zhang notes: "As BEV sales rise, so does the deployment of charging infrastructure, alleviating range concerns and bolstering consumer confidence in electric vehicles."

A wide charging network plays a key enabling role to encourage EV adoption among the masses.

On this front, Petroliam Nasional Bhd's unit, Gentari, is the largest fast-charging network provider in Malaysia as certified by the Energy Commission.

But providing charging services is not as easy as thought as most EV charging service providers globally are still operating at a loss.

Overcoming this hurdle would be key to

increasing charging networks in any country – and a good charging network is key.

This is especially to deal with range anxiety among EV owners.

BloombergNEF noted earlier this month that charging operators, who make money from electricity sales, are not profitable, but some companies here have begun to generate positive earnings before interest, depreciation and amortisation.

In Malaysia, Tengku Zafrul acknowledged in January this year that the number of EV charging stations in the country at 1,500 is still far from the initial target outlined under the Low Carbon Mobility Development Plan 2021-2030.

Tengku Zafrul reportedly said the target of 10,000 EV charging stations operating in the country by 2025 will also be reviewed.

He noted that setting up such charging stations involves many processes and agencies, including the Energy Commission, local authorities and other parties.

The minister said there are plans to make the approval process seamless and quicken the approval period.

This is following feedback that setting up a charging station is taking too long a time.

Based on these, it is likely that when a more widespread charging network is present in the country with improved charging wait times, that EV sales will pop even further as range anxiety dissipates.