

Subject: Week 59 Learnings- Electric cars
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Dear All

I was in San Francisco last week and I was lucky to visit the Tesla plant and the offices of NIO , the EV carmaker from China. It was an eye opener for me in looking at how these car companies are looking at the future.

1. Tesla and NIO are luxury cars, priced \$50,000 and above. Tesla is making about a 1000 cars a day now and sold about 93,000 cars last quarter. NIO is starting off now but has ambitious plans.
2. NIO was conceived in 2012, launched in 2014 and has sold about 11,000 cars so far. Its manufacturing is completely outsourced, they do not have a single factory. Their model is to ensure that they are consumer centric with digital and thus know more about the consumer than anyone else.
3. Both cars use Aluminium where Novelis plays an important role. Tesla set the battery capacity at 300 miles. And they are both in a race to build batteries that can go to 500 miles.
4. NIO uses mobile charging, home charging and a charging centre route. NIO swaps batteries of any duration use in 3 minutes. Total charging for a Tesla car is about 40 minutes. Building the eco system for charging will be a key determinant of success for the EV industry.
5. These two car companies employ very few people with the automobile background. 30 % of their employees come from auto and the balance 70 % come from technology.
6. These brands are dependent on government subsidies to start with, the subsidy in the US is about \$7000 while the subsidy in China has still not been resolved.
7. These cars are bought by current luxury car owners for the love of design and technology. Every Nip car comes with NIMO , a Alexa type assistant. Both of them want to get to level 5 automation at the earliest – which is completely autonomous driving.
8. NIO has a parcel delivery feature in its car. The car collects the delivery package and the owner can see it on line. This is needed because the consumer does not want the neighbours or office people to see what he is buying, and also for delivery agents to go up and down the lifts is a hassle.
9. The cars do 0 to 100 in about 2.4 seconds. The next battle is to reduce that to about 2 seconds and to increase battery range.
10. NIO plans to enter the US by 2023, starting with California. Tesla buy then hopes to establish a strong lead.

It was fascinating to meet the teams and to hear about how they want to change the world.

Feedback welcome

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