Should Tesla enter India?

A strategic scenario analysis

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Firm Case Presentation and Problem Statement

Tesla and its visionary CEO, Elon Musk, are working to create "*the most compelling car company of the 21st century by driving the world's transition to electric vehicles*" (Tesla, 2022). They have not only established themselves as a key player within electric vehicles (EV), but in the whole automobile market, with the most valuable car brand in the world (Brown, 2022).

Since its founding in the US in 2003, Tesla has expanded its global presence and their cars are now available for purchase in 40 countries and almost all continents (Adayemi, 2022). The most notable geographic move so far from Tesla was in 2019, when they first entered the

Chinese market, and more recently in early 2022 when they expanded their Chinese production capacity to keep up with demand for Tesla vehicles in the Asian market (Reuters, 2022).

With the success in China, Tesla is now looking to make another significant strategic move by entering another big market, India. With 1.38 billion people and almost 300 million cars on Indian streets in 2019, it is easy to see why Tesla wishes to get a share of the enormous Indian market (Statista, 2021). However, while Elon Musk has for a long time been saying that "*Tesla's launch in India is imminent*", it has proved to be a complex and difficult process, which is taking longer than expected (Karthikeyan, 2022; Lambert, 2022). Tesla wants to sell and service cars produced at the Chinese Gigafactory and monitor the sales response before setting up any manufacturing, to minimize the risk of the large investment needed for the plant. However, the company's entry into India has been on hold since 2019 as they want lower duties on imported EVs in the country, the direct opposite of the Indian government's trade policies. The government instead wants Tesla to set up a factory in India, thus stimulating the Indian economy while Tesla leverages the Indian market (Karthikeyan, 2022).

Based on the above, this paper wishes to examine and attempt to understand which factors are most pressing for Tesla to conquer in an attempt to enter the Indian market and give recommendations for how the company should approach different scenarios to succeed with their Indian entry. The overall, guiding question of this paper is therefore:

"How should Tesla act regarding the Indian market to achieve the best results in the next two years?"

Answering the overall question will be guided by answering the following sub-questions:

- *What are the most important scenarios for Tesla to understand and plan for regarding a possible entry to the Indian market?*
- *How would different strategic approaches perform in each scenario?*

To answer these questions, the paper will start by describing the industry and context that Tesla is looking to enter. After this, the scenarios will be developed and described along with three possible strategies for Tesla. The scenarios and strategies will be analysed in combination to determine how each strategy fits with each scenario.

Introduction to Industry and context

In this section, an introduction to the Indian EV industry will be presented to ensure a common understanding and contextualization for the rest of the paper. This will be done by conducting an external, PESTLE analysis and an internal, SWOT analysis.

The Indian EV market was valued at USD 681.5 million in 2021 and is expected to grow at a CAGR of 65.1% between 2021-2030 (Fortune, 2022, figure 1). Recently India has taken measures to accelerate the transition to e-mobility due to the increase in prices for oil imports, rising pollution, and international pledges to battle climate change. Therefore, the Indian government is encouraging the adoption of EVs through incentives for producing and purchasing. The stringent Green House Gas (GHG) emission norms drafted by the government, such as the Bharat Stage VI emission standards, are expected to play a decisive role in driving the growth of this market (Grand-View, 2020).

The outbreak of the COVID-19 pandemic triggered a significant decline in overall sales of private vehicles in 2020. However, the sales of electric vehicles in India remained unaffected. The increased post-lockdown sales from 4,642 units in 2020 to 14,218 units in 2021, registering a 206.3% y-o-y growth is a prominent indicator of electric 4-wheel (4W) vehicle acceptance in India (IBEF, 2022). As a result, India has committed to an aspirational goal of having at least 30% of private automobiles as EVs by 2030 at the COP 26 Summit.

The Indian EV market is currently in its nascent stages and is poised to emerge as one of the leading markets globally. The market is anticipated to grow quickly after 2025 as the initial costs of EVs are predicted to be comparable to those of ICE (Internal Combustion Engine) vehicles due to lower battery prices, advancements in EV technology, domestic production, and scale. With less than 4% 4W sales being EV's currently (ETAuto, 2022), demand is expected to increase, backed by rising population and increasing purchasing power of the middle class.

The following section will analyse the diversification prospects into the Indian 4W EV Industry using a PESTLE analysis:

Political: The Indian Government has taken strong measures to push the electric transition. The FAME India Scheme was launched in 2015 for faster adoption and manufacturing of hybrid and electric vehicles. Additionally, customs duty on nickel ore, a key component of lithium-ion batteries, was reduced from 5% to 0%. Income tax exemption on EV purchase loans and reduced tolls on roads have also been introduced. The Production Linked Incentive was

launched for Advanced Chemistry Cell battery storage which is expected to boost India's battery infrastructure. However, high import tariffs have been implemented to propel localization and avoid an influx of foreign manufacturers.

Environmental: ICE vehicles are a major contributor to the pollution problem in major cities in India with 22 out of the world's 30 most polluted cities in India and their replacement with EVs will improve air quality (Shetty, 2022). With rising fuel prices and India looking to reduce crude oil imports, EVs are a more economic and eco-friendly choice.

Social: With rising awareness of the environmental impacts of ICEVs and health issues from pollution, consumer demand is increasing for EVs. Based on research, consumers' top concerns regarding adoption of EVs are the cost and performance (Moulin, 2018).

Technological: EV production in India is not cost-effective today because of inadequate local supply chains. 260GWh of Li-cell demand is estimated in India by 2030, but this demand lies beyond the scope of complete localization (Randheer Singh, 2022). In addition, a significant chunk of high-voltage power electronics for EVs use proprietary components with knowledge lacking in India. To scale local production, the government is not only investing in infrastructure but is also attempting to attract foreign companies with the know-how by offering favourable FDIs.

Legal: Different states have their own EV policies which will affect the geographical location of production unit setup.

Economic: India's automobile sector contributes 7% to its GDP and 49% to its manufacturing GDP. India's nominal GDP is forecasted to rise from USD 2.7 trillion in 2021 to USD 8.4 trillion by 2030, driving purchase parity for four-wheel personal vehicles (PTI, 2022). The 4W EV market is predicted to grow to 5.5 million units, making India the fourth largest market globally, with the share of 4W EVs to grow up to 30 percent by 2030.

Next, the prospects of Tesla's entry into the Indian market are analysed using a SWOT analysis.

Strengths: Tesla is the world's most valuable automaker by market value with over $1 Trillion market capitalization (Thomas, 2021). The brand value of Tesla may play a role in attracting Indian consumers in the premium segment. When compared by range, Tesla's electric cars have proven to be the best at covering maximum distances with great performance. Tesla has advanced power electronics technology with a reliance on innovation.

Weaknesses: Tesla uses lithium-ion cells in its battery packs. Considering the high cost of extracting Lithium, there have been supply-chain bottlenecks leading to the overall delay in

production (Fortune, 2022). Considering the high cost of Tesla cars, Indian consumers may not want to invest in them for city driving.

Opportunities: Tesla is expensive due to its unconventional reliance on innovation. They launched Model 3, which is a more affordable version of Model S with less range, power, and fewer features. However, this is an excellent opportunity for Tesla to expand their market to other price ranges in developing countries. Investing in a factory or an assembly plant in such a market would bring the costs down considering local manufacturing resources and labour costs.

Threats: There's uncertainty about customers' willingness to adopt EVs in the Indian market due to various factors like lack of awareness, charging infrastructure, etc. But if they do, Tesla's inability to meet the large demand of the Indian market will affect its brand value. Two competitors – Tata Motors and MG Motors have concentrated 95% of the Indian market, taking a lead in EV charging infrastructure as well (Statista, 2022). Competitors like Mahindra & Mahindra, Hyundai, Audi, Mercedes, etc. are aggressively investing in the EV segment. There is fierce competition amongst existing players and any new entrants.

Development and presentation of future scenarios

Driving Forces

The development of the four future scenarios were based on finding the two most significant driving forces regarding India's attractiveness and Tesla's willingness to enter the market. Our discussions lead to discovering many different forces, but consumer preferences and regulatory action were prioritized as the two key driving forces, due to their high impact and critical uncertainty within the following 2 years concerning Tesla's decision to enter the market (Appendix 1).

As Tesla only produces electric-powered cars, the appetite for electric cars in the Indian market plays a key role. The company can only be successful in terms of car sales if there is a preference, expressed in terms of demand, for their product, otherwise they will be forced to close their operations. It is argued, that from a 2022 standpoint Indian people perceive these vehicles as a good investment, due to increasing fossil fuel prices, environmental awareness, tax rebate on loans, and subsidized pricing (Mohapatra, 2022). However, the market is still relatively small, as only 0.15% of newly registered passenger cars were EVs (Grand-View, 2020, figure 1). The Indian government has set an ambitious target of 30% of newly sold private cars should be electric, therefore, the market has a lot of room to grow (Sen, 2022).

Nevertheless, if perceptions change or fossil fuels become cheaper an entrance to the Indian market might become painful for Tesla in terms of shrinking sales.

As mentioned above, the Indian government is determined to bring a change to both the Indian car industry and consumer behaviour toward new car purchase. While every foreign EV manufacturer, including Tesla, is invited to participate in the market, current Indian legislation demands foreign manufacturers to pay a 60% import tax for cars priced below $40,000 and a 100% import tax for more expensive cars (IANS, 2022). As Tesla's cheapest model, Model 3, starts from $46,990 in the United States, the company would be subject to paying the highest percentage. Therefore, one of the key determinants of Tesla's success in the Indian market is the national government and its willingness to allow foreign manufacturers to compete on a level playing field against domestic ones. If the government determines to liberate its market and electric vehicles manufactured in a foreign country can be sold at no additional import taxation, it is expected that Tesla could enter the market smoothly (Karthikeyan, 2022).
The diagram below illustrates the two major factors affecting Tesla's entrance to the Indian market, creating four future scenarios.

Future Scenarios

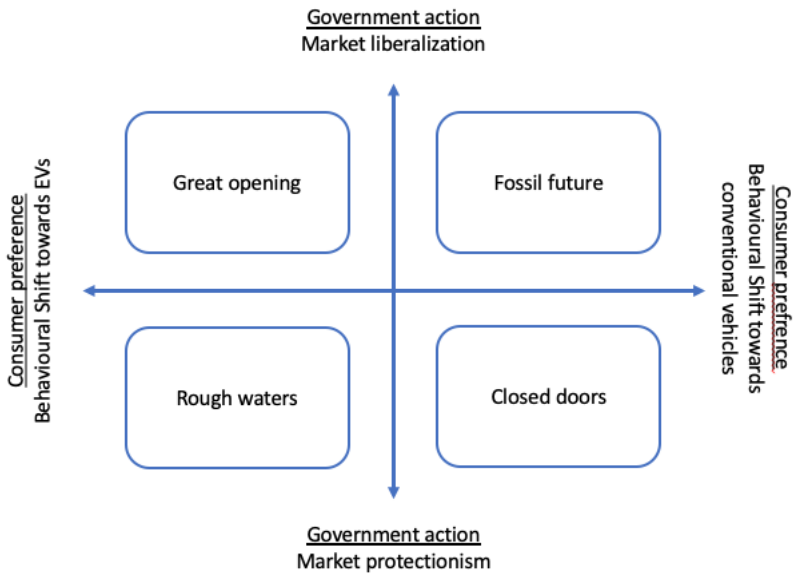


Figure 1, Scenarios developed by the two drivers

The above chart plots the two key drivers, consumer preference (CP) on the X axis and regulatory action (RA) on the Y axis. These two drivers are mapped to reach their extremes in

the following manner. Indian regulatory bodies could decide to either open their markets for foreign electric vehicle manufacturers or protect incumbent domestic producers. Indian consumers on the other hand could have either increased demand for EVs or reduced interest in four-wheel EVs. Having an increased consumer demand for electric vehicles coupled with a liberalized domestic market, we arrive at the first scenario.

Great opening

As the Indian Government now allows foreign manufacturers to sell without the import levy and consumers' willingness to purchase EVs increased, the market became a target for many international firms. Consumers are concerned about the growing pollution and related health issues, making them more likely to purchase alternative solutions to combustion-powered engines. The market is forecasted to grow at a remarkable annual rate of 49% until 2030 (Grand-View, 2020). Therefore, many global producers, such as Kia, Suzuki, and Hyundai plan to rush to enter the market and capture market share. Market competition is expected to grow stronger, especially within the first decade when both domestic and international firms fight for market share. Concurrently, Tesla has more advanced technology and therefore better performance, which is their key selling point along with quick service, brand value, and innovative business model. Additionally, as consumers do not face a levy, they would be able to purchase Tesla models at a lower price. The increase in demand is likely to be met with increasing prices of resources and bottlenecks in the supply chain of raw materials and semiconductors, which later could translate to higher sales prices and longer manufacturing times. Indian consumers are generally price-sensitive and therefore Tesla needs to pay attention to this factor.

This is the best-case scenario for Tesla as both driving factors favour them, therefore the Indian market could play a strong role in their presence and expansion in the South Asian region.

Fossil future

While the market has opened to foreign manufacturers, the consumers did not undergo behavioural shift towards EVs and favour combustion-powered engines. The EV market in India becomes a niche and both incumbent and external manufacturers are hesitant about expanding due to the increased challenges in sales. Legacy brands with combustion engines are however enjoying the market development, with annual sales growing at 11.3% annually (Grand-View, 2019). It is expected that the relative share of EVs will remain the same over the

course of the next five years and foreign producers are not anticipated to set up manufacturing plants in the country.

There will be high competition to conquer the niche Indian market. Tesla can monopolize the niche market by focusing on different price ranges (Bergemann & Valimaki, 2005). They can do this because they are by all means EV-focused and for other well-diversified players, EVs might not be a priority segment, due to low market growth.

Rough Waters

In this scenario, the Indian government implements an import levy on foreign-produced EVs, however, customers prefer to purchase EVs instead of conventional vehicles. In terms of growth, the market is expected to grow at a rate similar to the Great Opening scenario, however, the government clearly incentivizes domestic manufacturers to serve the market, as foreign manufacturers need to pay a levy of 60-100% to import their cars into the country (IANS, 2022). This translates to an increased selling price which is most likely going to deter price-sensitive consumers from buying foreign EVs and instead prefer domestically produced EVs. A foreign manufacturer could bypass the import fee by setting up a local manufacturing plant, which would be supported by EV infrastructure policies of India but would require a great level of commitment in terms of investment. The largest challenge for legacy domestic manufacturers would be to serve the increased demand, as their manufacturing lines may experience bottlenecks, causing long waiting queues. To have these issues solved quicker, the selling price is likely to increase. Domestic EV start-ups are expected to boom, but due to the large capital investment needed for building manufacturing lines, and garnering brand image, they will need to establish partnerships.

For Tesla, this scenario creates a unique opportunity to invest in a growing Indian EV market. Even if Tesla decides to set up an assembly plant at first and manufacture important parts in the Shanghai Gigafactory, they would only be taxed 15-30% based on the level of assembly (Singh, 2021).

Closed doors

In this scenario, the Indian government decides to keep the import levy on foreign EVs, and at the same time, consumers preference is passive towards EVs. They favour combustion engine-

powered cars. The government is reluctant to remove the levy to support domestic manufacturers. Competition in the EV market gets limited to domestically manufactured models that capture large portions of the market share and there is no interest from international manufacturers to rush into the market.

Arguably, out of the four possible scenarios, this is the worst scenario for Tesla. The local demand is not sufficient in any level and therefore it would be worth it to investigate different countries in the region to expand with production and sales facilities.

Strategies of Tesla

The following section will cover three different strategic solutions for approaching the Indian market for Tesla. The three strategic approaches are a full-scale entrance by building a manufacturing plant in the domestic market, a joint venture with a domestic car producer or lastly, they could decide to enter a niche segment of the market. Each strategic option will be described after which the strategic approach will be evaluated for each of the four scenarios.

Strategy 1: Manufacturing in India

Foreign Direct Investment of Tesla in the Indian market was analysed using Dunning's OLI paradigm decision tree to check whether it was a viable strategy. The analysis had a positive indication (Appendix 2).

Following this strategy, Tesla would build and operate a Gigafactory (manufacturing plant) in India as well as selling offices, constituting to a complete entrance to the country. As previously mentioned, the Indian EV market is currently valued at USD 681.5m and is set to grow at a double-digit rate with high industry concentration (Grand-View, 2020; IBEF, 2022). The industry is expected to be in its growth phase and if executed correctly, Tesla could achieve a leading position in certain customer segments, primarily within the high-income consumer segment considering their current product portfolio. Tesla could attract customers by offering high-range vehicles at a relatively lower cost (due to local manufacturing).
Nevertheless, establishing a manufacturing presence is a tough decision, which requires strong financial commitment and patience, as it can take years to pay off. Tesla's last EV factory built in Austin has estimated costs of over USD 10 billion, while generating 20,000 direct and 100,000 indirect jobs in the region (Fortuna, 2021). As Tesla would enter the market with all their four vehicles, an equally sized factory could be built in India with similar figures in terms

of employment and costs benefiting local municipalities as well. However, once a factory has started being built, it is difficult to reverse the original decision of entering, as the sale of the assets may be difficult.

Great opening: +

The strategy would work well in this scenario, as customers have an increased demand for EVs. Since there is no levy to be paid for importing cars manufactured from a 3rd country, Tesla could start sales from the Shanghai Gigafactory while Tesla builds its factory in India. Later, the local demand could be served from the factory in India. One risk from this scenario could be longer waiting lines; as the local demand surges for Tesla's products, in the beginning the Shanghai factory could experience bottlenecks as it needs to both serve the already existing demand and the newly found Indian market.

Fossil future: --

In this scenario, the strategy would not work out very well as consumers' preferences have neglected EVs, even though regulators have liberated the local EV market. As Tesla builds a Gigafactory, it could potentially steal market share from local competitors, however, the market size will remain relatively constant. Given that a similarly sized factory could produce almost 500,000 vehicles per year and the Indian market is currently valued at almost $700m, with a weighted average price of $80,000 for a Tesla, the firm would need to export around 492,500 vehicles to other countries (Pandaily, 2022). Given, that the local demand (if served completely) would consume only around 8,750 Tesla EVs annually. Hence, it would not be a great idea to invest in a local manufacturing presence. A better proposition would be just to import cars from the existing Shanghai factory, as consumers do not need to pay import taxes.

Rough waters: ++

As consumers have a strong preference towards EVs, and the local government wants foreign manufacturers to move their production plants to the country, Tesla could benefit from the increased demand and could sell their vehicles at lower costs once the plant is up and running. This way Tesla could benefit on two fronts: serving the booming local market while expanding to strategically important geography.

Closed doors: --

As regulators are protecting the local market and consumers do not prefer EVs, the strategy of setting up a local manufacturing location would perform poorly. The local demand is small, so it does not make sense to invest heavily into setting up a manufacturing plant.

Strategy 2: Alliance with a domestic firm

Based on synergies, competencies, marketplace, and resources, a thorough analysis was made to identify the right alliance/acquisition for Tesla to enter the Indian market. Taking the factors into consideration, an equity joint venture (JV) alliance looked promising (Appendix 3).

A second strategic option for Tesla is to enter the Indian market through a JV with a local EV producer. In this strategy, Tesla would work with the local EV producer to launch an EV specific to the Indian market, which would be manufactured by the local firm. A JV would allow Tesla to sell in the Indian market without having to establish a costly manufacturing presence, while also lowering the import levy. For such a JV to work, the local firm would therefore need a manufacturing plant in India already. For the purpose of this paper and its scope, the local firm would be an Indian firm, which is not operating on a global scale.
As previously mentioned, the Indian EV market is dominated by Tata and MG, which are both large in the market, and a JV may not be of significant value. However, for a smaller company like Mahindra & Mahindra, which targets a mid-range price segment, the chance to create a car catering to the premium segment together with Tesla, would be an attractive proposition to reach new customers. For Tesla this collaboration would make sense as they could utilize Mahindra & Mahindra's 6 auto-manufacturing plants (Mahindra, 2022). Additionally, Tesla could benefit from Mahindra & Mahindra's distribution network in India and their knowledge of the market.
It should be noted though that with any JV, it would be necessary for the involved parties to consider how they should split the risks, costs, profits, and benefits. Additionally, Tesla should consider whether it would be damaging for their brand to be associated with a less luxurious firm, as this could change consumer perception of the Tesla brand even outside the Indian market.

Great opening: --

In the case of the Great Opening scenario, it would make little sense for Tesla to enter the Indian market through this method. The main purpose of the JV is the option to avoid the import levy without having to heavily invest in local manufacturing. However, if the government opens the opportunity for Tesla to simply import cars in India, it makes more sense to enter the market the way Tesla wants; selling and servicing cars in the market, and then if the demand is great enough based on the behavioural shift, a manufacturing presence could be established.

Fossil future: --

In the scenario of fossil future, it would also not make sense for Tesla to enter a JV. With market liberalization, importing would be a viable option for Tesla and with limited demand, creating a larger presence in the country would not be rewarded. In this scenario, the potential intellectual property (IP) risks and brand-damage of a JV, would outweigh the benefits, and the JV should therefore be avoided.

Rough Waters: ++

The scenario of Rough Waters is where it would be most strategically advantageous for Tesla to enter through a JV with Mahindra & Mahindra. As this scenario shows a strong demand for EVs, it would be an attractive market for Tesla to enter and being able to utilize Mahindra & Mahindra's existing manufacturing presence in the country, would allow them to sell in the market without the import taxes. Additionally, it would allow Tesla to gain access relatively quickly to the market, without the cost, commitment, and long timeline of having to first build factories in India.

Closed doors: --

In the Closed Doors scenario, a JV would not make sense. As this is the least attractive scenario for Tesla, it would make more sense to completely stay out of the market and await either one or both factors to improve in the market.

Strategy 3: Niche market

According to this strategy, Tesla should enter the Indian market with only sales and repair offices in the four major cities: Delhi, Mumbai, Ahmedabad, and Bangalore, gaining access to the luxury segment. Even though the market was characterized as overall attractive, no manufacturing plants would be set up within the country's borders. This way Tesla could limit the risk of spending billions in capital expenditures and thus not significantly committing to the country for at least the next 2 years. The strategy is characterized as passive, and it gives Tesla the option to monitor. This option could be optimal if the initial uncertainties fade away in, for example, five years. Tesla could reconsider the option to enter the market with a production facility later while maintaining customer relations and gaining market experience in the upcoming years (Weeds, 2002).

Great opening: ++

As the local market is experiencing huge growth and the import levy is lifted, the strategy could perform quite well in this scenario. With no import tax, the EVs will be sold at the price of their value. Considering the higher costs of Tesla EVs, Tesla can target the premium and/or

high-end segments. The EVs will be imported from the Shanghai factory and with growing demand, considering the value proposition of Tesla models, we expect more people to invest in their high-end models. This means there is a risk factor in the ability of the factory to deliver enough vehicles to meet Indian demand. Tesla will face stiff competition from both local and foreign brands.

Fossil future: +

In a scenario where consumers are not interested in EVs, but the regulators have opened up the local markets for importers, Tesla could leverage its hypothesized extra capacity in Shanghai and serve the non-increasing local market in the high-price segment. Adapting to lower price segments will not serve a purpose for Tesla, with such low demand. With high-end or premium segment entry in the market, Tesla could establish a local presence without having the need to set up a manufacturing plant and steal some market share from the incumbent firms. International competitors may disregard the market, due to its limited future opportunities.

Rough waters: ++

Consumers show a strong preference for EVs, however, regulators have effectively closed the Indian market for importers with the 100% levy. With the import tax, the Tesla models would have more price than value and hence a luxury product. The strategy to target a niche luxury segment works best in this scenario to cater to the growing demand, without high investments in a manufacturing plant. Arguably, only a small pool of enthusiastic buyers would engage in purchasing a luxury Tesla. Since Tesla would be left to serve a niche market with few competitors, Tesla should try to gain a monopoly in the segment using its capabilities. This would create brand value for Indian consumers. The luxury segment has a lower sales volume, hence after gaining experience in the market and monitoring demand trends in the Indian EV market, Tesla could eventually re-evaluate its strategy.

Closed doors: -

In a scenario, where regulators have left the market closed and consumers are not interested in EV adoption, this strategy could allow Tesla to focus on the niche luxury market. The Tesla EVs would be more expensive than its value because of the 100% import levy and would be attractive for certain brand loyalists or technology enthusiasts ready to spend. Given that Tesla did not commit to a manufacturing plant, if the sales locations are failing to turn a profit, they can exit the country easily.

Recommendation

Three strategies were identified and benchmarked in all the scenarios based on the significant factors of government action and consumer behaviour, and minor factors like economic growth, competitive advantage, etc. An optimal strategy should be able to reduce the risks and losses Tesla might face in the developing EV market of India. Benchmarking the strategies helps clarify which strategy is the best solution across scenarios. The findings are summarized below:

Strategy\Scenario	**Great Opening**	**Fossil Future**	**Rough Waters**	**Closed Doors**
Manufacturing in India	+	--	++	--
Alliance with a domestic firm	--	--	++	--
Niche market	++	+	++	-

Table 1, Strategy review in different scenarios

Reviewing our strategies in different scenarios, we see that an alliance with Mahindra & Mahindra would only make sense if there were high demand in the Indian market, but government regulations stay rigid on import duty. Tesla does not prefer to get into an alliance due to its reputation of internal capability as well as for protecting its IP. But considering India's large market, high profitability could reluctantly lead to this alliance to save on import taxation by manufacturing locally with reversible lower investment.

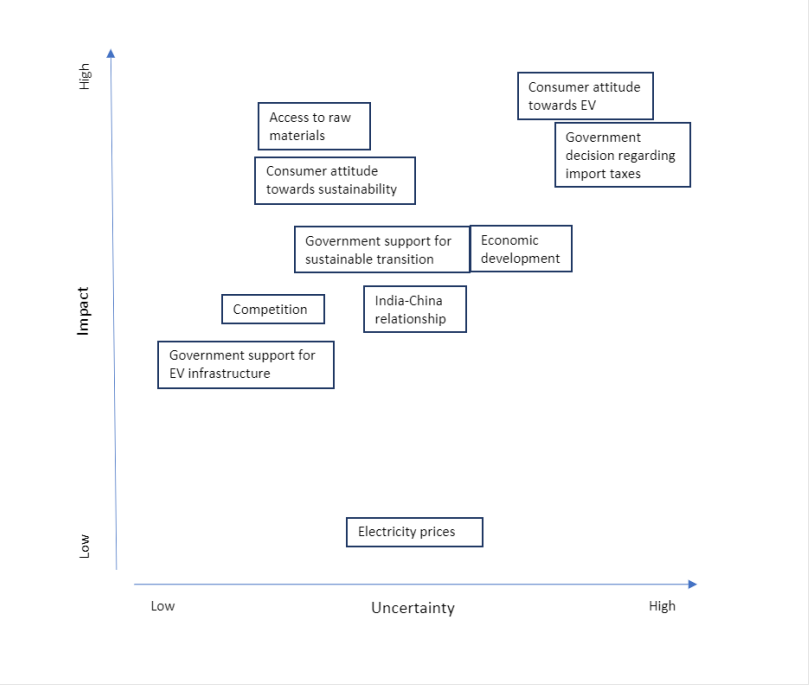
In the case of manufacturing strategy in India, since it requires a large investment, it would make sense in the Great Opening and Rough Waters scenarios where consumer behaviour has a shift towards adopting EVs. In Rough Waters' high import taxation scenario, manufacturing locally would reduce costs for Tesla and prices for consumers. This will drive demand for Tesla EVs. If the government regulations loosen on import in the Great Opening scenario, it would just be easier to import the EVs from the factory in China.

Tesla has positioned itself as a premium EV starting in all other markets. So, it would make sense for Tesla's entry in India to be focused on the niche segment. With this strategy, it is quite resistant to changes in the market with government regulation or consumer behaviour. Tesla can initially cater to the premium or luxury segment (higher costs if import levy) without high investment in a factory. They can monitor the market demand trends and contemplate future strategies. Not entering the market at all would leave a gap for another luxury car maker to fill.

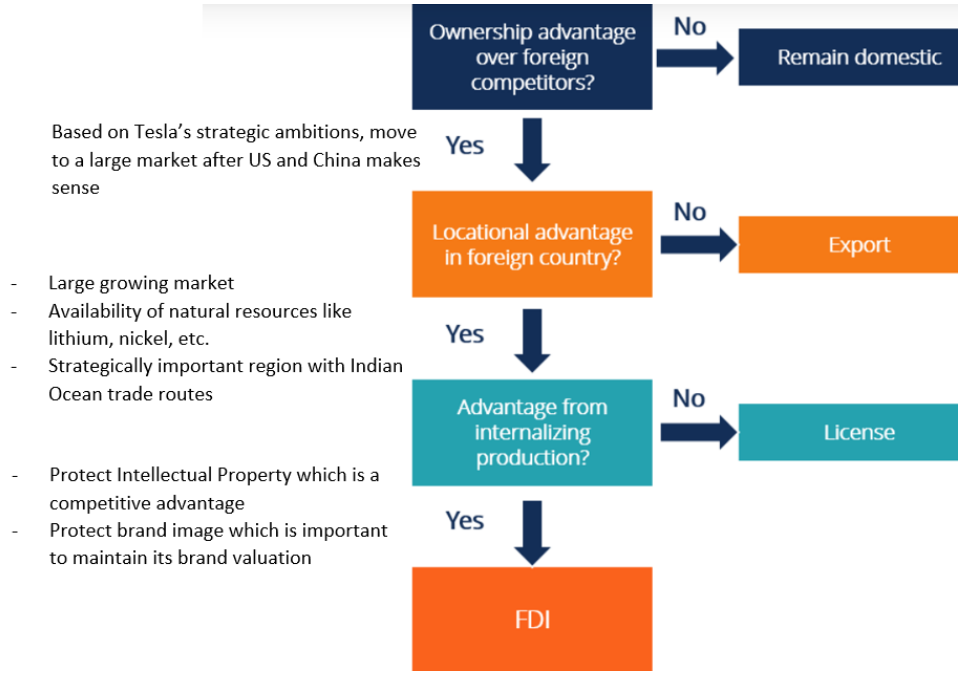
Reflections

Tesla and the Indian Government are caught in a checkmate situation where Tesla's market would be India, but jobs would be in China (factory). Considering that Tesla's entry into the Indian market is a boost for the country's EV industry and global image, the Indian Government stands firm on its decision to not reduce import taxes. One of the major reasons is the protectionist policies of the Indian market to boost the local economy. But another factor at play is the economic competition between the giants – India and China. This factor may contribute to the future of government regulations, India pushing Tesla to not import from China. Tesla recently expanded its Shanghai Gigafactory, making it the largest in the world, and in light of the small EV market in India at present, investing in another Gigafactory in the region could be risky. So, entering the market in a niche segment and expanding thereon seems like the best available strategy for Tesla in the next two years.

Appendix



Appendix 1, Mapping of driving forces by impact and uncertainty



Appendix 2: Dunning's OLI paradigm decision tree analysis

	Analysis	**Why**	**Result**
Types of synergies	Reciprocal	Tesla and Mahindra & Mahindra will work closely together through an iterative knowledge-sharing process, Tesla with technology and Mahindra & Mahindra with market know-how.	Acquisition
Nature of resources	High	Mahindra & Mahindra has manufacturing plants and distribution networks as hard resources and human resources for soft resources. Tesla has supply-chain as hard resources and technological know-how as soft resources.	Equity alliance
Extent of redundant resources	Medium	Tesla is solely focused on EVs while Mahindra & Mahindra is an automotive company with an EV	Equity alliance

		profile. So, some of their EV-related resources are redundant	
Degree of market uncertainty	High	EV adoption seems promising with rising pollution and fuel prices, but lack of infrastructure and consumer behaviour are highly uncertain	Equity alliance
Level of competition	Medium	Competition from various players in the market but they are new to the EV sector. Tata Motors and MG India have first mover advantage in EV sector, but high and premium range market shares are not concentrated.	Equity alliance

Appendix 3: Analysis of alliance

Additional analysis: Porter's five forces:

Bargaining power of suppliers – High

There is limited localization in EV manufacturing. About 70 percent of the value addition in an EV is currently imported, including batteries and power electronics. In the current scenario, local suppliers have more bargaining power given the limited domestic availability of several high-value components.

Bargaining power of buyers – Medium

Keeping in mind the rising fuel prices, the Indian market has limited EV models to choose from with three major options (low-range) – Tata Tigor, Tata Nexon, and MG EZS (Nagaraj, 2022). Internal combustion engine vehicles (ICEV) cars have country-wide coverage of service networks and fuel refilling stations. So long as the barriers to EV adoption, such as inadequate charging infrastructure and upfront costs remain high, customers in EV segments will have medium bargaining power.

Threat of new entrants – Medium

A key barrier to entry in the EV industry is the significant capital required to enter the market. This barrier, however, is currently being tackled by existing vehicle manufacturers in India with investments already made and planned in the next few years. Competitors like Tata

Motors, Mahindra & Mahindra, Hyundai, and Maruti Suzuki plan to launch 35 new models in the next 5 years (IBEF, 2022). Moreover, EV manufacturing is less complex than manufacturing an ICEV, making it easier for new players to enter the market.

Threat of substitutes – Low

Direct substitutes to EVs are ICEVs but there is a shifting trend towards EVs with rising oil prices and pollution. As EVs become cheaper in India with infrastructure setup, this trend will only accelerate. The other substitute is 2-wheeler EVs which currently captures 48% of the EV market. Trends indicate an increase in private 4W ownership due to the rising shift to the middle class and their purchase power.

Rivalry between competitors – High

Two competitors – Tata Motors and MG Motors have concentrated 95% of the market, taking a lead in EV charging infrastructure as well. Competitors like Mahindra & Mahindra, Hyundai, Audi, Mercedes, etc. are aggressively investing in the EV segment. It is easier for them to leverage existing production facilities, sales points, and service points. There is fierce competition amongst existing players and any new entrants.

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