FINAL INDIVIDUAL ASSIGNMENT DESIGN THINKING FOR INNOVATION
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"TESLA"

1. Introduction and Problem Statement:

Tesla Motor Company was founded in 2003 by two Silicon Valley Engineers: Martin Eberhard and Marc Tarpenning. Their goal was to show to the world that "Electric Vehicles can be Better, Quicker and More fun to Drive Than Gasoline Cars." WU, A. (2022). "*The Story Behind Tesla's Success (TSLA)*" "investopedia.com". Probably the turning point of Tesla has been finding Elon Musk as venture capital. Years later, he became the CEO of the company. It was 2008. Musk became CEO and in the same year Tesla lunched its first car in the market: Tesla Roadster. Nowadays, it's the most valuable automotive brand in the world.

I'll go analysing the problem that in my opinion is relevant (European EV Market, why they are not dominant?), probable solutions and their future possible opportunities.

2. Market Research:

The Tesla's brand value is $75.93 Billion (June 2022), and it has a Market Cap $474.38 Billion (December 2022). That's not their best MC, in 2021 they had $1.06 Trillion (the descend was due to the Russia-Ukraine war). The problem that I want to analyse today is related to the fact that they are dominating the US car market (70.6%). In other hand in Europe (Revenue in this sector in 2022 was $414.60 Billion) they just have 13.2% market share.

"Tesla's market share fell by (slightly more than) half in Q2. That's not what you would have expected, given that Tesla's first European factory opened on March 22" Wahlman A. (August 01, 2022. "*Berlin Factory Faceplant: In Q2, Tesla's EV Market Share in Europe Got Cut in Half*". "seeking alpha".

Electric Vehicle Market (EV Market) in US will reach $823.75 Billion. In Europe within 2022 is projected to achieve around $156 Billion. Considering the annual 16% growth expected, the projections let us understand that until the end of 2027 the market volume could be around $340.9 Billion (source: statista.com). In terms of millions of electric vehicles sales in the future world, the US will be third after China and Europe. Perhaps, the data shows how this industry will have has a leader the China with 7.53 million cars sale, Europe 5.55 million. Lastly US with 2.13 million (https:// youtu.be/WKFYDDWW7qA). We need to think about how this data are relevant and how is important the European

market. We need to talk about how many vehicles per habitant there will be. Right now, the China population is 1.41 billion people with a growth population rate of 0.03%. Us population is composed by 332 million people. European one has 447 million people.

Research done in 2017 the German wasted 41 hours a year just looking for parking. The mean in Europe is around two day per year. In other hand, the average time spent in US Is 17 hours annually. All these data have costs, too (like fuel and emissions. In 2017 time spent in US searching for parking cost $17 Billion).

Luxury Yacht Market size in 2022 is $9.25 Billion. This data is destinated to rise. The future vision is around $14.5 Billion within 2030.

3. Associate to course learnings:

The biggest take away from this course is the "5 why's". Before starting the course I've always taken for true every single suggestion or data. I didn't ask myself the reason why of that answer or data. Thank to this, I trying to use more fantasy for find solutions. Practically, for the same topic I find various solutions, from the most realistic to the most fantasy one. I try to unite these solutions together trying to find a "new direction". I don't know if it's practical for the pressent, but I feel more comfortable for the future. I started to daydream again. Is it stupid? Probably. I set to myself hard tasks and challenges. Probably I will fail during my journey, but I know that it will worth. In the mindset to use for approaching at this subject is: don't worry to fail. Understand why you failed, fix your product/solution, and try again. I think is the most valuable lesson learned since I'm studying. Thank you for this.

4. The Problem-Solution Fit:

The problem that I would like to solve is: **why Tesla's share market is not dominating the European scene?**
First, we need to analyze the competitors. The European EV Market has been dominated by Volkswagen Group and Toyota. Why? There are many factors that we can highlight. The average spent by Europeans for EV cars is around $55,610.00. Omitting the quality of the motors and the performance of the vehicles, under an aesthetic point of view the interior of the Tesla cars are quite minimal. The only gadget that captures the attention is the big screen, at this point is the mark of electric cars. Interior design is quite "poor". The main competitors are Audi E-Tron, BMW i-4 and BMW i-7.
Are we sure that European people avoid Tesla cars just for interiors? Of course, no.

The main problem is the "size" issues. European cities have problems with parking. In general, the first glance when European citizens visit North America are the big cars. Of course, fuel cost less, but it's easier to park them. Research done in 2017 the German wasted 41 hours a year just looking for parking. The mean in Europe is around two day per year. In other hand, the average time spent in US Is 17 hours annually. Just think about cities as Rome, Milan, Berlin, Paris. There are not build for cars. Finding parks, it's a real challenge. That's why are preferable little EV cars instead of the bigger ones. How can afford this issue the Californian Company? In my opinion there are two ways. First, try to develop a new car's segment A. Basically, a city car. An electric vehicle studied for the city center. The problem could be the cost related to a new product. Enter in a new market full of competitors could be a problem (just think about the car-sharing and the fact that bigger autos are preferable instead of smallest for long trip. So, they should build a vehicle usable only in few cities center). The other way could be developing a system based on AI and Machine Learning able to share information related to parking. For increase their Value Proposition (data sharing only between Tesla vehicles), when a Tesla car are leaving the park, they send a "message" to the nearest car (always a Tesla one). So, the algorithm understands two-four minutes before when they are leaving the park and advise the nearest Tesla where they can find the place. Basically, they could create a park network where all the customer of the Californian's Company are facilitated finding places were leaving their cars. That could reduce drastically the time spent looking for a park. Always talking about AI and Machine Learning, they could develop a system able to recognize eventual car parts damages. They could share with the owner the problem and ask him/her/them to order the new part, with price, nearest Tesla center, and working time to fix it. The customer of the company they won't need wasting time to have news from the repair shop. They already knew the entity of the damages, repairing time and final price. Taking inspiration from Alfa Romeo, BMW and Ford, they could add an NFT (Non-Fungible Token) related to every single car. This token is able to share the real information of the car as miles, all the damages of the auto had or have by car, tires consumption, how much that car helped the environment, battery and components status and other sensible car's data.

A **challenge** that they could undertake is trying to make green the world cargo supply chain delivery. Practically, they should come into bring as first electric/solar panel shipment's cargo. Instead of using fuel, thanks to the energy taken from the Sun, they should be able to reach every Ocean edge. Implementing their auto-pilot system, they will be able to pilot the cargo by the AI, calculating the best itinerary, weathers, and waves heights. In 2020 the market's size of cargo shipping was around 10.80 billion tons. After evolving an appropriate green solution for the cargos, they should try to enter in the Luxury Yachting Market. They should set as goal the same as the one settled for the

cars: Electric boat can be Better, Quicker and More fun to Drive Than Gasoline One. Of course, if someone want to play with the fantasy we can go moreover. Think about a boat-slit house 100% green. Thank the desalination of the saltwater, they could use the Ocean water drinkable. They should develop the first real estate net-on-water small ecosystem ever. Studying the perfect number of houses connected each other, the Oceans conditions, and *green* energies they will be able to create the first life-platform ever built not on the land, without restock ground.

5. Concluding Discussion:

Resuming, they should develop a technology able to help the Tesla car's owner to share the parking position in order to spend less time looking for parks. Customers will be more incentivized to buy Tesla cars and create a network between them for help each other saving money and time. Try to reach a business market more profitable aim could be an important way to be more profitable and try to achieve a niche market share.

They should try to take more European EV car's market's share. We are talking about billion dollars of opportunity now but especially in future where this market will be one of the biggest one.

In my opinion differentiate is a good solution to avoid black swan. It's sufficient thinking about the Covid-19 pandemic, where the car market had a huge stop. In other hand the yachting one increase. Right now, Tesla is focus 95% in car selling, the other % in research related to new energies (as panel solar).

In a distant future could be beautiful see that challenge done. It could help the world.

6. Personal Reflection:

I tried to challenge myself choosing this Company. It was no easy find a problem related to them. After days of research the problem that I found was the European market share. I had asked myself all the possible whys related to this data. Even on the Internet, the only solution that they give are related to "conservative" market. I tried to open my eyes and see the differences found between this continent and the Europe. Probably using another company with big problem could be easier, but as I said before, my aim was challenging myself.

RESEARCH

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