

Entrepreneurship and IP Strategy
Professor. Gouri Gargate
Rajiv Gandhi School of Intellectual Property Law
Indian Institute of Technology, Kharagpur
Lecture No. 30
Case Study V – Automobile Industry

A very warm welcome in the Fifth Module of Week 6 of the course Entrepreneurship and IP Strategy, title, Case Study 5. We are studying today Automobile Case Study Tesla.

(Refer Slide Time: 00:27)



Probably, you have seen a few news related to Tesla, like Tesla files patent for Lasers on vehicle.

(Refer Slide Time: 00:33)



Tesla and Adidas tangle over 3 Stripe Design.

(Refer Slide Time: 00:38)



Tesla and Amazon founders clash over Spaceflight Flight Patent.

(Refer Slide Time: 00:41)



Tesla files Teslaquila Trademark for Liquor.

(Refer Slide Time: 00:46)



And the Tesla Trademark Dispute in China Resolved, these are the few examples we have given you. And probably, you have come across this kind of news and these are all related to IP. Now, we will see a little bit details about this automobile company, its inception and how exactly IP strategy is followed by this organization.

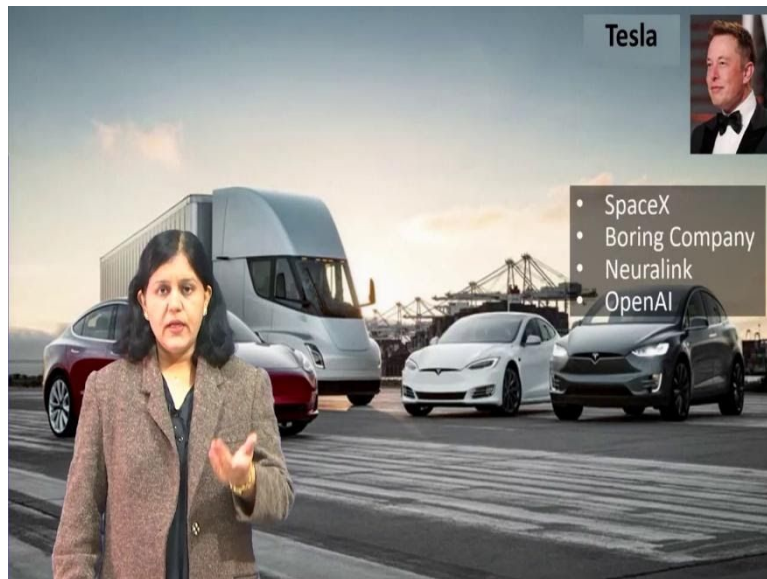
(Refer Slide Time: 01:09)



Tesla is highly innovative automobile company, expanded in other sectors such as solar space. And it has started from like a scratch bright idea like most start-ups and small businesses start. If we see, Tesla Motors incorporated in 2003 by engineers Martin and Mark. So, these are the founders. And Elon Musk, current CEO of Tesla is early investor and also product architect of Tesla. Elon Musk, if we see the background of Elon Musk, he is a Doctorate of Physics, and he is also followed Fellow of the Royal Society right from 2018.

Now he is longest tenured CEO of any automotive manufacturing globally. So, I guess, this is, this background of Elon, and if we see the Tesla and its expansion in various sectors, it is really very impressive.

(Refer Slide Time: 02:05)



We can see the examples of entrepreneurial activities of Elon Musk, he expanded Tesla and now Tesla have offering in various sectors. Elon Musk entered in the space sectors and he is the founder, CEO, CTO and Chief Designer of SpaceX. He is also founder of the Boring Company, and which is a American infrastructure and tunnel construction service company, and it is founded by Elon Musk in December 2016. The motive behind it is like that, it was, there was a difficulty with Los Angeles traffic and limitations, and this is like inspiration for this organization which he has started in 2016.

He is also co-founder for a Neuralink. It is an American neuro technology company. It was founded in 2016. And it is about developing implantable brain machine interfaces. He is also co-founder and chairman for OpenAI, an artificial intelligence research laboratory. Now he is holding, now he is not holding any position, but he was in the, that founding, that OpenAI. He is doing donations and all other activities related to OpenAI till, although he is not associated with that. Now, we will focus more on Tesla Motors.

(Refer Slide Time: 03:26)



As discussed earlier, Tesla Motors incorporated in 2003. And if we see the offerings of Tesla Motors, the focus is on renewable energy resource usage for driving that car. In 2006, Elon said that, I quote what he has said, it is like overarching purpose of Tesla Motors is to help, please listen carefully, “Expediate the move from mine-and-burn hydrocarbon economy.” So, he has clearly said like mine-and-burn hydrocarbon economy towards a solar electric economy.

It is like a vision of this organization, they are moving in that direction very fast since 2006. And they have their whatever patent portfolio if we see, IP portfolio if we see, it is mostly around that particular technology and this industrial design is also or rather it is a again most important IP when we see Tesla offerings.

(Refer Slide Time: 04:27)

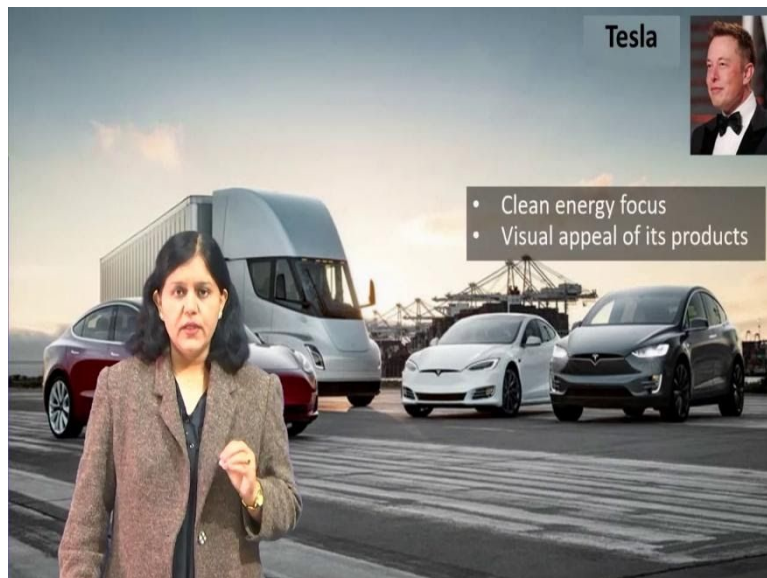


In 2010, Tesla raised over 225 million dollar in a public initial offering. And this is like first time in car manufacturing that is gone public after Ford Motors, which gone in 1956. So, you can see that it is a unique thing to go, raise the fund, and they have raised something around 225 million dollars. In 2012, it began selling all electric vehicles, 6 years from Elon said that he is moving from that or they are aiming to move from that hydrocarbon economy towards a solar electric economy.

And within that, we can say, he is, they have started all electric car offerings from the, from, in their portfolio, if we can say that is the scenario. Financially, a very remarkable move for Tesla was that in March 2013 and February 2014, if we see during that period, price of Tesla stock increased nearly 7 fold. So, we have seen the increase in such kind of a stock when we have seen the Biocon example.

Now here also in a Tesla example, you can see that in a short period with all, less than we can say like a 1 year, it has become a seven-fold, I guess, we have seen in Biocon, It is like a 4 fold kind of scenario was there. So, the down question is what exactly inward, investors are looking into Tesla and they are investing into the, that organization.

(Refer Slide Time: 05:54)

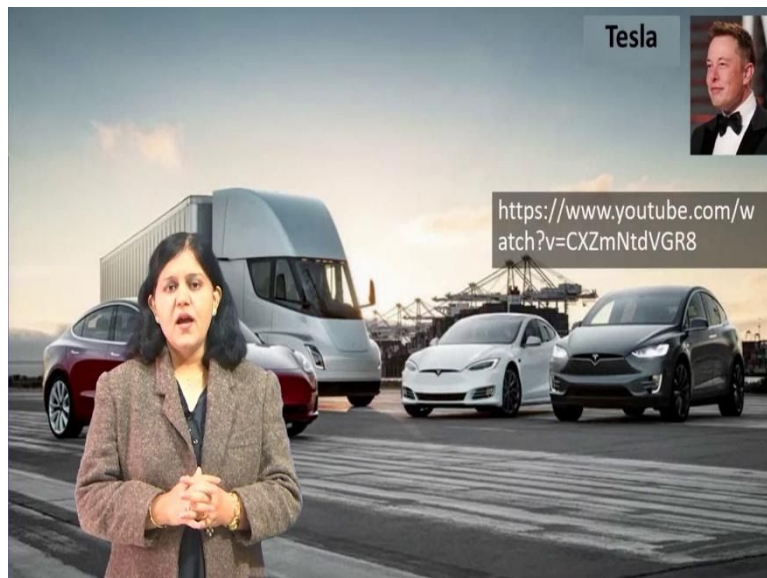


So, the analysis shows that investors see in the clean Energy focus, that renewable energy source or a solar energy source. And I like the terminology, whatever he has used, like moving from hydrocarbon economy towards like a renewable kind of source or clean energy source or that kind of economy. So, here they are looking into the clean energy focus of the company, which is reflected in a company's policies on use of IP rights. And we can see their patent or whatever technology related innovations and inventions are there, they are around that particular core idea that is clean energy focus is there.

Then the strong brand that the company has developed in the part due to the visual appeal of the products. And you can see that these are the 2 important things, that are technology which is protected by IP patent and a visual appeal, which is protected by industrial design. And they are playing a very important role in the building of that kind of brand image in the market. And we can just compare it with Apple here, that we know the offerings of Apple, it is like a very customer focused, customer, a premium class customer, they are just focusing on.

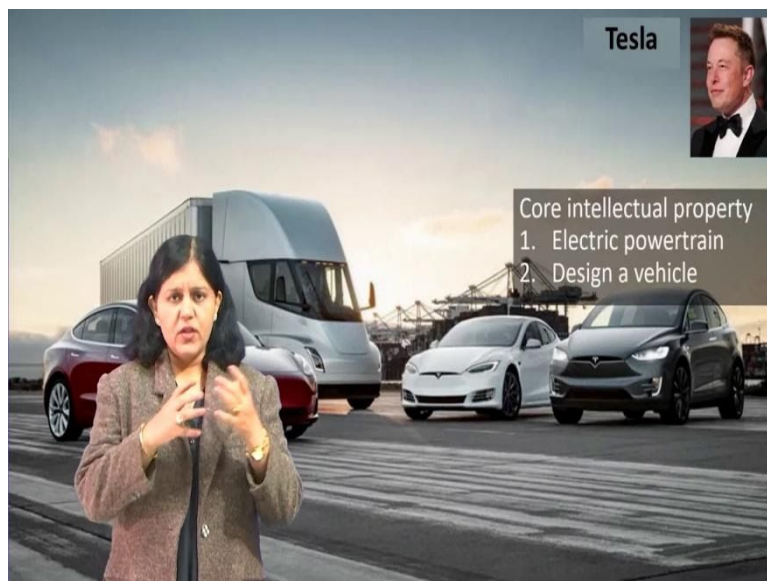
And they have also, means technology is a prime thing and then the appearance and that particular, the way with which their products and services are, not services, but the products are appearing, obviously that is a very special appearance is there. Similarly, here you can see the technology is definitely, it is a strong, which is protected by a patent and the other part that is industrial design, which is playing a very important role in the offerings of Tesla.

(Refer Slide Time: 07:36)



Now, we can watch here a video, and you can just enjoy various designs which are offered by your Tesla. So, this is an advertisement of a Tesla, you can enjoy this with different designs which are offered.

(Refer Slide Time: 08:46)



So, if we move further and if we see the annual report of Tesla, so their focus is like a design and technology like electric power train, that kind of technology is there. And if we go little bit details about the annual report, what is there in the annual report is like a design develop and manufacture and sell, means they are saying in that, they are saying into the annual report

that we are, like we are designing, developing and manufacturing and selling high performance full electric vehicles.

So, there is no question of hybrid and all, means we still are in that hybrid technology kind of scenario, we are well aware about. But what the annual report of Tesla says that we design, develop, manufacture, sell, high performance full electric vehicle and energy storage systems as well as install, operate and maintain solar and energy storage products. So, they are covering all their offerings here like automobile and solar related whatever their offerings are there, both things they are covering and they are stating that, “Yes, we are giving a, that full electric vehicles, energy storage system, and we install operate maintenance solar and energy storage products.”

In the annual report, Tesla further clarifies that their IP management view and they say that “Our core IP resides not only within electric power train, but also within ability to design a vehicle that utilizes the unique advantages of an electric power train and the latest advancements in consumer technologies.” And if we see the portfolio of Tesla, and I will bring example of Crompton Greaves also here, because that is one Indian organization, which is focused on industrial design, and that is a classic example of use of industrial design and a patent like a Tesla.

So here, what we can say, if we see an Apple, I am just making a comparison with Apple. So, if we see all these 3 organizations, if we take, technology is a very core kind of thing, and yes, they are protecting it by IP. But they are taking into consideration the design. And yes, design is making a unique standing in electrical appliances when we are considering Crompton and Greaves, in Tesla, when we are saying, automobile sector, and then mobile and related kind of technologies that computer and all, if we see then Apple is making a unique, what we can say, presence in that particular sectors. And they are in 3 examples, whatever we are seeing, patent is important thing that is a technology protected by IP patent.

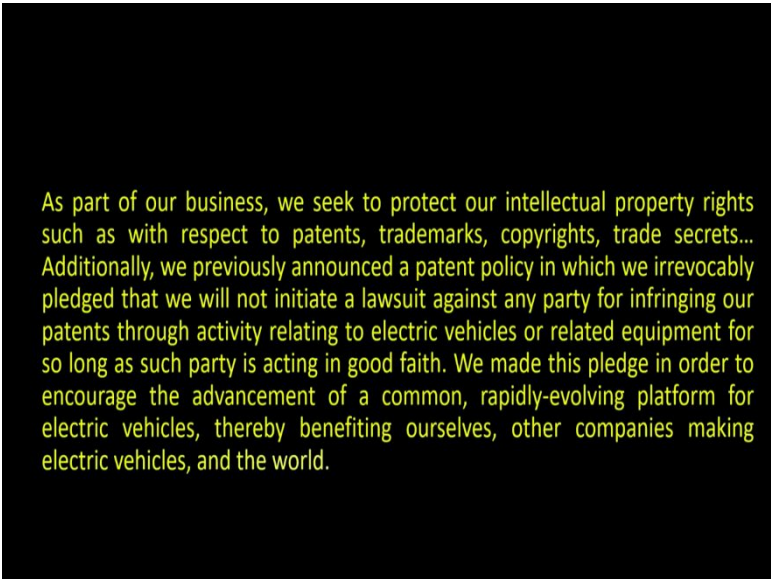
And yes, they are very serious about industrial designs, rather, they are more serious about industrial design than the technology or balancing that activity. So, equally they are giving importance. And I just remembered, means example of Walt Disney here, that when we are talking about a copyright case or the information about a copyright, we have seen that Walt Disney impacted the government, that decision, like it in US government has decided to increase a timespan of a copyright from 60 to 70 because of the, that particular case of Walt Disney.

And probably, this kind of activity of Apple or this at Tesla, we will see probably may, they may think, already we are, they are doing that industrial design patenting, they are not doing industrial design protection like India, means, if India it will come, it will be like 15 years of protection is there under Industrial Design Act. But probably the examination procedure and all other activities, whatever are there, or maybe if some, maybe, means they are the active usage, users of a IP that is industrial design, so maybe possibility is that some reforms if possible or is required in industrial design, probably that can be this kind of organization will push that kind of activity to make some amendments if required in industrial design, that protection.

So, it is in the, very interesting move in 2014, if we see, that Elon, in his blog that is, this is a very unique or we can say the landmark or you can say a milestone in this Tesla or a very interesting announcement made by Tesla, that he said that he has given that pledge that whatever the company has taken, and through that pledge, they have open the IP asset, which they are like owning that is like very unique to them, that is a very core technology to them, but they have decided to open that particular portfolio, which is giving them a standing in the market.

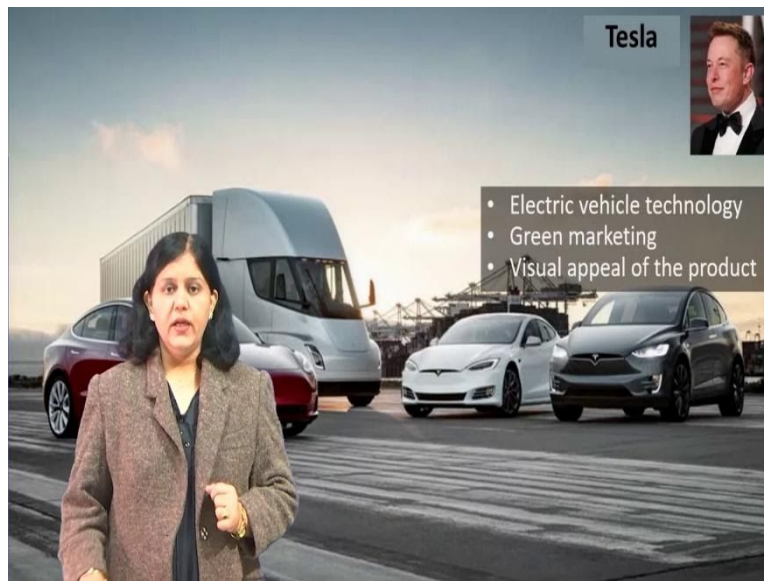
And they have said, the, but the pledge is very important. If you see that pledge, the wording if you see, probably you can guess the IP strategy also and company's motive also, and how they have balanced IP and open source. It is a very good example; you can check the wording of that. So, you can just see this pledge.

(Refer Slide Time: 13:46)



As part of our business, we seek to protect our intellectual property rights such as with respect to patents, trademarks, copyrights, trade secrets... Additionally, we previously announced a patent policy in which we irrevocably pledged that we will not initiate a lawsuit against any party for infringing our patents through activity relating to electric vehicles or related equipment for so long as such party is acting in good faith. We made this pledge in order to encourage the advancement of a common, rapidly-evolving platform for electric vehicles, thereby benefiting ourselves, other companies making electric vehicles, and the world.

(Refer Slide Time: 14:11)



So, in short, it says, “No patent lawsuits against anyone who in good faith wants to use our technology.” Which technology, they have clarified. Electric vehicles or related equipment. So, if we analyse that pledge, probably you can understand that it is not completely they are opening the, their IP portfolio to everyone, there are some terms and conditions we can say. So, these terms, and it is like in a small star, always it is written, terms and conditions are there, applied or something like that.

So, if you read carefully that pledge, that terms and conditions are definitely there. And we have to be very careful to understand what that particular announcement is there. It is not a completely kind of a public opening of a IP portfolio or availability of public availability, publicly they are making available the IP portfolio, but they are doing it selectively. And they are clarifying that, yes, good faith should be there, electric vehicles or related equipment. And then they put the words like so long as such parties acting in good faith, if you read it carefully, you can just go back and you can read it carefully and then you can appreciate that how nicely or intelligently that pledge is worded and what exactly they want to convey.

But yes, definitely, this is this is a good IP strategy, where balances strike between completely what we can say closed kind of innovation kind of thing or a completely IP kind of scenario protection and all and then the open source kind of scenario. So, that is a completely, they have understood the importance of both and are using it very effectively. So, if we see that particular design, if we see that consumer psychology, we are moving further, I

will just give you the, why people are means, the 2 important things whatever Tesla is talking like technology and design.

And along with that, a few other factors definitely are there, that is like a consumer psychology is there, that is an electric vehicle technology, yes, that is okay. And they are saying that we are promoting that green marketing. Obviously, when we are talking about them, it can be a clean tech technology, because they are using that electric vehicle technology. And yes, for electricity, they are dependent on that solar technology. So, it is like a green marketing. And the third important thing like they are giving importance is a visual appeal.

So, industrial design, that visual appeal is there, green marketing, that kind of environmental sustainability and environmental aspect is taken into consideration, and electric vehicle technology is taken into consideration, and we have to appreciate that when we follow that complete electric vehicle technology, the thing whatever is happening is like that you get more space, because you are saving the space of that machinery and all, and therefore, you get a maximum space in that particular car. So, that is an advantage, if we see the electric vehicles that is advantage of electric vehicles.

Now, once based on these factors, the major decision is taken, then the consumer, means this is the basic thing consumer will look into when they will go for buying of car, then consumer will do the detailed analysis of other components and other factors. But the main thing is like a main major technology, which is giving them more space and then saving in fuel cost and all that thing. And the important thing after doing that, they are giving the required kind of mileage and all other things and then they are giving a visual appeal kind of thing nothing like that. So, that is a major thing they will look into and then other factors they will decide, all.

(Refer Slide Time: 17:53)



Now, if we see the journey of a Tesla, in short, if in a, briefly if we want to see that particular thing, they have entered into the electric market with a high-end Tesla Roadster. This is, this was like a great offering the Tesla have made. It as a high performance vehicle with a modern sporty appearance, where at that time, means we can say that Ferrari and that kind of organizations were the, like they are popular in the market when we are talking about that kind of a sporty appearance and all, but Tesla has given that like, Tesla Roadster and they have competed with that particular offerings, and yes, they have made a very good standing with that particular offering.

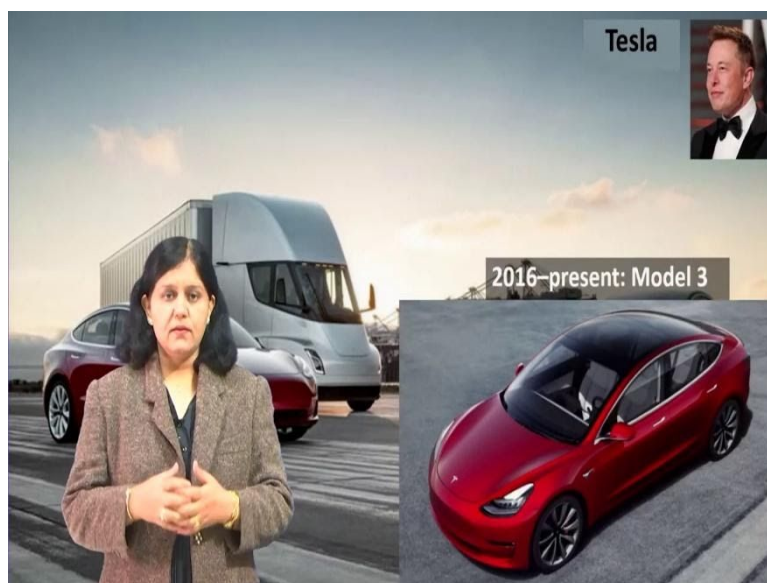
In 2020, means, now they have decided that they will come up with a new roadster and they are launching that soon.

(Refer Slide Time: 18:43)



Now, the next offering they have made in 2012 that is a luxury vehicle, that is a Model S, and it is like ground-breaking design and technology. You can watch, if you visit Tesla website, you can watch the complete, how exactly that car is looking and all, probably you will enjoy that particular thing.

(Refer Slide Time: 19:01)



Then the next offering they have done now for Model 3, which is a low cost sector we can say in the automobile, that category it is coming. And obviously, in all theory, if we see that energy efficient car, battery life, engine capacity, green consumers, so, everything is like a social value. The perception of a society is there, yes, we are buying that particular thing so that we are like environment friendly, so that kind of social values are also taken into

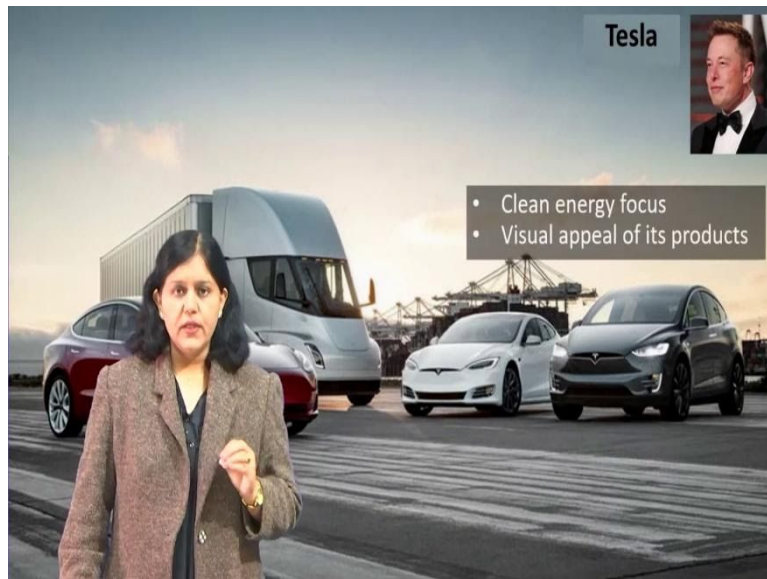
consideration, then emotional value is also there, when we see a customer that emotional value. So, technology and that visual appearance one thing is done, then that social value is taken into consideration, then that economic value, it is very affordable kind of offerings are there.

And, yes therefore, that economic aspect is also taken into consideration, then emotional value is taken into consideration and the functional value is the major influencer when we are talking about that capture, market capture by Tesla. So, if we see that timeline, it is like a 2000, it is a 2003 inception, 2005, 2009 this roadster was like captured market, then 2010-15 they have introduced Model S, and then Model X was, S and X was there. And in 2016, they have offered like a Model 3, and there were other offerings like Model Y and then the Solar City also.

So, that was the, what we can say, the offerings of a Tesla where there, means in related to automobile and then the Solar City also they have established in that period particularly. And as I have told you in 2020, they are offering, now Roadster is coming with new appearances, and that will take the, probably it will again like already in advance booking and all thing, that kind of scenario is there with the Tesla offering. So, we will conclude by one quote here actually.

(Refer Slide Time: 21:00)





Now, if we see this quote, so Tesla is in the exhibition of, if we see, means, if we see this quote and the whole Tesla offering, we can say that this is a very good exhibition of matured IP strategy followed by selective moves such as first early stage strong IP protection that is a first one, second establishing in the market by unique developments in electric vehicle sector such as Tesla Roadster, and then finally moving to a selective use of open source to strengthen the core technology.

So, it is a amazing move and amazing strategy they are following when they are thinking of IP and that offerings into the market, protecting it with a patent and industrial design, these are the core IP when we are talking about Tesla, and then they are moving towards open innovation. And we are aware about open innovation. We have dedicated one module on open innovation in second week. So, they are utilizing it effectively now to move or develop that particular technology very fast. So, I guess with this, you get the idea about this, how Tesla is using IP strategy for its offerings and how they are capturing the market.

And if you see the current scenario of Tesla, in this scenario where like a lockdown kind of scenario is there, still if we see the booking for a Roadster, it is like an advanced booking is already done and companies now offering or giving that particularly, new offering new look of that Roadster coming into the market. So, you can visit the site and you can enjoy the different varieties or the different designs which are offered by a Tesla. With this, we are coming to the end of this session. See you in the next session. Thank you.

(Refer Slide Time: 23-06)

Tesla

References :

- <https://pixabay.com/>
- <https://www.wipo.int/portal/en/index.html>
- <http://www.ipindia.nic.in/>
- <https://www.google.com/>

swayam

NPTEL