

An Analysis of Tesla's Disruptive Innovation Strategy

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Abstract: With the rapid development of new energy vehicles, governments and automobile manufacturers are generally aware that environmental protection is an important direction for the development of the future automotive industry, and Tesla, as a representative of the global new energy electric vehicles, has great research significance. In the fierce environment of the automobile market, Tesla has won the leadership position with many innovations. Therefore, the company is considered a disruptive innovation by the public. This paper focuses on whether Tesla's innovation is disruptive innovation, and studies Tesla's disruptive innovation strategy through literature reading and qualitative analysis. This paper discusses the definition of disruptive innovation, Tesla's current innovation status and explores the difference between it and incremental innovation. This paper draws the conclusion that Tesla is a disruptive innovation by considering whether it creates a value network as a breakthrough point. Finally, the paper puts forward some suggestions, including extending the product line, adjusting its price to maintain its competitive advantage and innovation, adjusting the channel level based on local markets, provide more extreme and detailed experiential marketing and after-sales service, so as to promote Tesla's sustainable innovation.

Keywords: New energy vehicles, Tesla, Disruptive innovation, Marketing management.

1. Introduction

Although there are many kinds of new energy vehicles, people currently recognize that they are equal to electric vehicles. As early as the 19th century, electric vehicles were invented and became a kind of transportation tool. However, because the technology of fuel vehicles is constantly iterated, electric vehicles are limited to raw materials and technology, etc., and their functionality, stability and applicability are not as good as fuel vehicles. Therefore, electric vehicles have not appeared in the market for a long time. Nowadays, thanks to more and more mature research and development technology, and also the attention to environmental protection, new energy vehicles have been redefined and sought after by the market.

As the world's most valuable motor company and the only listed company for new energy vehicles, Tesla has always been a topic of great interest. On the one hand, its research and development capability, business model and marketing strategy are in a leading position in the international market. A company with global annual sales of less than 370,000 cars and only 17 years' history, has a higher market value compared to many annual sales of tens of millions of traditional automobile enterprises, such as Toyota, Volkswagen, and so on. Yong [1] believed that despite the small production scale, Tesla could become a leader in automobile development in the future with its strong R&D and

marketing capabilities. On the other hand, while being very optimistic about the capital, Tesla's low production capacity and accidents caused by technical problems have also been criticized. In any case, Tesla is considered an innovative company, and many media outlets have even labeled it as a disruptive innovation company.

So, is Tesla a disruptive innovator? How can Tesla maintain its sustainable innovation? Through literature reading and qualitative analysis, this paper takes Tesla as the research object to analyze its innovation strategy. At the same time, it also hopes to play a role in the innovation of other new energy vehicles.

2. Literature Review

Christensen [2] first proposed the theory of disruptive innovation, believing that it is a value network that can bring completely different products and services to the market supply and existing mainstream market, causing disruption. At the same time, he also described that it may initially occur in the low-end market, quickly occupying the market through low profits and simple services, and eventually becoming mainstream, replacing the original occupiers.

Markides [3] proposed a similar view, stating that disruptive innovation is either the way to open up new markets is disruptive, or products with technological innovation are breakthrough. De Jong and Van Dijk [4] argued that disruptive innovation often comes from non-mainstream markets where large companies are not optimistic about the low profits. However, it has the potential to become increasingly powerful, ultimately disrupting the entire industry.

At the same time, scholars have also defined incremental innovation: Christensen [5] proposed that the biggest feature of incremental innovation is that companies with influence in the market, in order to maintain competitiveness, focus on high-value customers and products to be constantly innovative. In addition, Cozzolino and Verona [6] suggested that the core of incremental innovation is better, while the core of disruptive innovation is different.

Although both disruptive innovation and incremental innovation are innovations, their essence is different. As shown in Table 1 below, whether to create a new value network is the fundamental criteria to distinguish disruptive innovation and incremental innovation.

Table 1: Comparison between Incremental and Disruptive Innovation

	Definitions	Purpose	Keywords	Example
Incremental Innovation	Not creating markets or new value networks. Improving existing products and endowing them with higher value	Maintaining corporate competitiveness	Better Not creating value networks	Upgrade of Win 7, Win 8, Win 10
Disruptive innovation	Create a new market or value network, bring about significant technological changes and create new knowledge, causing disruption to existing markets and networks	Creating Enterprise Competitiveness, disrupting the existing environment	Different Creating new value networks	Computer Machine- Personal Computer- Portable Computer

3. Analysis of Tesla Innovation Status

3.1. Product

Tesla places emphasis on research and development and technological innovation to create barrier products, having invested more than \$3.075 billion in research and development. Tesla's technological innovation achievements include the battery, power system, auto-drive technology. First of all, in the battery, Tesla found early that battery technology is the key to new energy vehicles, so in 2013, they began to build their own battery factory and invested in research and development, which is currently the only use of high-performance power 18,650 lithium cobalt acid battery enterprises. Secondly, in the power system, Tesla innovatively uses dual-motor all-wheel drive, and deploys high-performance motors in the front and rear of the frame, solving the problem of insufficient power that electric vehicles have criticized in the past. Lastly, Tesla's investment in autonomous driving has enabled them to implement lane maintenance, assisted steering, and automatic parking functions. These all enabled the electrical vehicles to replace the traditional fuel ones and become the choice of customers.

3.2. Price

Tesla has also been creative in its market expansion. In terms of product positioning, the overall strategy they take is to enter the market from the high end and constantly occupy the market downward. In the early stages, Tesla targeted high consumer groups to enter the market, aiming at the pleasure brought by high-performance sports cars. So they launched the Supercar Roadster (\$200,000). At the same time, they also adopted the strategy of market-skimming pricing to set a higher price and establish a high-end brand image. In the medium term, in order to compete with luxury main brands such as BMW, Tesla developed moderately priced mass production Models S-series, and began to set lower prices, forming a price difference with other mainstream brands and gaining more customers. In the later stage, Tesla further increased market penetration through price sinking, developed a popular product Model 3 (\$35,000), and further reduced the price to occupy a higher percentage of the market. From supercars to luxury SUVs, and finally to ordinary sedan, Tesla's strategy is to enter the high-end market from the edge and gradually expand into the mainstream market.

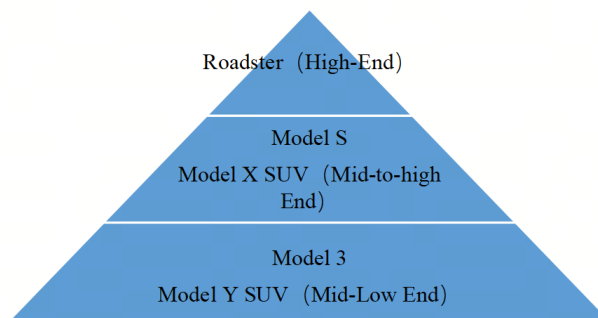


Figure 1: Tesla Product Price Positioning

3.3. Place

Different from the dealer network of traditional car companies, Tesla uses the direct sales model of Apple Inc.'s online purchase and offline experience store. Tesla uses digital technology and e-commerce platforms to let customers buy cars online, book test drives and even apply for loans. This kind of sales idea eliminates the middleman link, sells directly to consumers, provides after-sales

service, and breaks the traditional model of selling cars through 4S stores. Tesla has more than 760 sales and service centers around the world, and the location of these offline experience stores is usually in the more prosperous downtown shopping malls, which can attract the attention of consumers and further establish the brand image of Tesla. The purchase model is pre-order and then manufacture, allowing customers to customize their products while letting Tesla not have to worry about inventory problems. These measures can get rid of the profit exploitation of dealers in various channels, obtain more timely consumer feedback, but also improve the operation efficiency and profit of enterprises, control product inventory, maintain and enhance the brand awareness of enterprises.

3.4. Promotion

Tesla is adept at using social media and digital sales tools to create its unique brand impression. Fleming [7] stated that Tesla has built a good brand image around the keywords of science and technology, high-end, environmental protection and three new energy sources, and opened the market. The use of Hollywood movie stars, Silicon Valley business leaders and other celebrity endorsements has greatly improved the visibility and attention of Tesla electric vehicles. At the same time, Tesla often sets up some environmental protection funds, organizes public welfare activities with environmental protection as the theme and sponsors environmental protection documentaries.

Tesla uses social media (Twitter, Facebook, Instagram, etc.), online advertising, and content marketing to connect with potential and existing customers, and Musk himself is adept at harnessing the power of social media to spread his ideas and capture the public's attention. Through its interaction with consumers to convey brand value, product features and industry trends and other information, Tesla has achieved the purpose of improving brand awareness and influence.

4. Arguments to Tesla Disruptive Innovation

4.1. View: Tesla is not Disruptive, but Incremental Innovation

Not everyone is a fan of Tesla, and many are not optimistic about its prospects. Thomas [8] pointed out that Tesla is not a disruptive innovation, but an incremental innovation.

He has two core arguments. First, Tesla does not meet the definition of a disruptive innovation—moving from the low-end market to the high-end market, but rather the complete opposite. The market for new energy vehicles has already existed, and Tesla has not opened up a new market, which cannot be regarded as a disruptive innovation. Tesla's marketing strategy, especially its focus on high-value customers and products, is a prime example of incremental innovation.

Second, Tesla did not bring disruptive technological innovation. The technology Tesla is proud of, such as EVs, charging stations and autonomous driving, was developed 100 years ago. Tesla is not an inventor, but rather an improver of technology. If start from the perspective of improvement innovation, then it should not be disruptive innovation, but incremental innovation.

4.2. Response to the Arguments

Although there is a view that Tesla is not a disruptive innovation, the key to distinguishing between disruptive and incremental innovation is to analyze whether Tesla creates a new value network.

First, Tesla's top-down approach to entering the market is a new high-end invasion of disruptive innovation, in line with its basic theory. Tesla's market strategy from high to low avoids the route of complete competition with traditional car companies and opens up a new market. Guttentage [9] believes that from the perspective of market invasion, companies with disruptive innovation can continuously erode the core market and change the competitive landscape. This way of opening new markets could be considered a disruptive innovation.

Second, Tesla has redefined new energy vehicles, which is a disruptive innovation. Although electric vehicles, charging stations, and autonomous driving technologies have long existed, Tesla has succeeded in integrating these technologies and has made great progress, solved the series of problems existing in electric vehicles and made them replace the fuel vehicles, so that electric vehicles have entered a new era. This creates a new value network that is a disruptive innovation. Hardman and Steinberg [10] pointed out that Tesla has redefined electric vehicles, because before it entered the market, there were no companies that only produced pure electric vehicles. Dedehayir [11] proposed that disruptive innovation can replace existing technologies to meet the performance requirements of the mainstream market and create value.

To sum up, Tesla creates a new value network in the market and technology, which is a disruptive innovation.

5. Suggestions of Sustainable Innovation

Myles [12] believes that Tesla must catch the global new energy development opportunity to improve its competitive advantage through continuous innovation, research and development to achieve sustainable profit and development. Here are some suggestions for Tesla's sustainability innovation.

5.1. Product - Extend Product Types While Focusing on Product Quality

Tesla should extend the product line. Compared with traditional car companies, Tesla's car models are still few. For example, in the mid-market products, there is only one Model Y, and the market for electric SUVs with more space is increasing. At the same time, in the high-end market, Tesla's sedan and sports car series has not launched a new product for many years. Therefore, Tesla should continue to launch new models in the mid-end SUV and high-end sedan. By adjusting the product mix, it can reach more consumer groups and change the traditional consumption habits of consumers.

At the same time, improving the quality of products is also an important aspect of Tesla's strategy to maintain innovation. Tesla's recent product quality problems frequently appear in the major media, which has a negative impact on its brand image and the globalization process. The quality control of the product, that is, the safety and stability of the car, is the basic skill of innovation. Although Matt [13] proposed that Tesla is slightly better than many traditional car companies in terms of safety, Tesla should further regulate the production process of automobiles, conduct comprehensive quality control on its production process, and ensure the safety and stability of its products, so as to eliminate consumers' concerns about the safety risks of new energy vehicles.

5.2. Price

Although Tesla is already the frontrunner, there are already plenty of competitors in the market. Therefore, Tesla must adjust its price to maintain its competitive advantage and innovation.

First, in the high-end market, Tesla should maintain the price of existing products, such as the Model S, and Model X. Because the target customers of this segment are high income people, their purchase of Tesla is more like a collection than a utility, and they are more willing to brand their social identity. So lowering the price may lead to less loyalty among this segment of the population. Instead, Tesla should consider providing more valuable services to this segment of the population without lowering prices.

Second, in the low-end market, Tesla should further reduce prices to expand new customer resources and fight competitors. Tesla's prices in the US market are relatively reasonable, but in other regions, such as China and Europe, prices are high because of tariffs and transportation costs, etc. If Tesla further plays to the advantages of the local super factory, the use of localization strategies, such as Chinese factory manufacturing and sales in the Chinese market, as well as the use of local policies

and subsidies for the development of new energy vehicles, then Tesla will have room for further price reductions.

5.3. Place

Although Tesla has carried out innovation at the channel level and carried out a unique online + offline direct selling model, it still needs to adjust according to the situation of the local market (especially China), and cooperate with local e-commerce, networks and other platforms to develop channels. For example, it is necessary to cooperate with local e-commerce platforms and combine them with China's national conditions. China's e-commerce platform has a huge user base and sales networks, such as Tmall, Jingdong and others. E-commerce is still the first choice for Chinese consumers to purchase. By cooperating with these platforms, Tesla can not only increase overall sales revenue, but also promote the local construction of its brand.

5.4. Promotion

Tesla should continue to provide more extreme and detailed experiential marketing and after-sales service to give consumers an unexpected feeling. Anon [14] believes that market competition is no longer limited to products, but to the competition for valuable services. First, on top of the free test drive, Tesla could offer paid short-term rentals to allow potential customers to take the car back. Through the short-term rental of 3-5 days, they can better understand the advantages of Tesla cars and eliminate doubts and anxiety about new energy vehicles. In addition, consumers can be organized to visit local factories in the United States or China to feel the production and after-sales maintenance experience of Tesla, so that they can better understand how the vehicles they drive are unique.

6. Conclusion

In conclusion, this paper analyzes the innovation strategy of Tesla. After distinguishing the difference between disruptive innovation and incremental innovation through literature reading and qualitative analysis, this paper first analyzes the innovation status of Tesla by using the 4P theory of marketing. These include product level (batteries, charging stations, etc.), price level (from high to low encroachment on the market), place level (online and offline direct sales model) and promotion level (to establish a high-end, scientific and environmental protection brand image). After that, despite some arguments, regarding the core issue of whether Tesla is a disruptive innovation or not, this paper cites the key element of whether it creates a value network to illustrate that Tesla is a disruptive innovation. Finally, this paper puts forward some suggestions for Tesla's sustainable innovation, including extending the product types at the product level while focusing on product quality; maintaining price advantage at the price level, and further reducing prices by using localization and technology; working with local platforms at the place level to expand sales channels and providing more valuable disruptive services at the promotional level.

The limitation of this paper is that it does not have a better analysis of Tesla's international innovation strategy in different regions, such as the core markets of the United States, China, Europe, etc. How Tesla adopt a comprehensive international strategy to cope with the innovation requirement needs to be researched. In addition, whether innovation could bring out real profit and cash flow could also be a question. Lastly, it does not conduct further research on its innovation issues according to different local conditions, such as local policies, culture and markets. Since different place statuses could contribute significant factor for innovation strategy. Therefore, analyzing more about international and local innovation strategies for a growing profit is the future research area.

References

- [1] Yong S. (2006) *Application of the Multifunctional Vehicle Information System in New Vehicle*. [J]. *Vehicular Electronics and Safety*, 62(1), pp. 185-204.
- [2] Christensen, C. and Raynor, M. (2013) *The innovator's solution: Creating and sustaining successful growth*. Harvard Business Review Press, 101(2), pp. 66-67
- [3] Markides, C. (2006) *Disruptive innovation: In need of better theory*. *Journal of product innovation management*, 23(1), pp. 19-25.
- [4] De Jong M., Van Dijk M. (2015) *Disrupting beliefs: a new approach to business-model innovation* [J]. *McKinsey Quarterly*, 3(2), pp. 66-75.
- [5] Christensen, C., Raynor, M. & Medonald, R. (2015) *WHAT IS DISRUPTIVE INNOVATION?* *Havard Business Review*, 93(12), pp. 44-53.
- [6] Cozzolino A., Verona G., Rothaermel F. T. (2018) *Unpacking the disruption process: new technology, business models, and incumbent adaptation* [J]. *Journal of Management Studies*, 55(7), pp.1166-1202.
- [7] Fleming, B. (2013) *Electric Vehicle Collaboration: Toyota Motor Corporation and Tesla Motors*. *IEEE vehicular technology magazine*, 8(1), pp. 4-9.
- [8] Thomas, B. (2015) *Why Tesla Won't Be Able to Scale*. Harvard Business Review Press, 4(1), pp. 21-25.
- [9] Guttentag D. A, Smith S. L. J. (2017) *Assessing Airbnb as a disruptive innovation relative to hotels: Substitution and comparative performance expectations* [J]. *International Journal of Hospitality Management*, 64, pp.1-10.
- [10] Hardman, S., Shiu, E. and Steinberger Wilekens, R. (2015) *Changing the fate of Fuel Cell Vehicles: Can lessons be learnt from Tesla Motors?* *International journal of hydrogen energy*, 40(4), pp. 1625-1638.
- [11] Dedehayir, O., Nokelainen, T. (2014) *Disruptive innovations in complex product systems industries: A case study* [J]. *Journal of Engineering & Technology Management*, 33 (C), pp.174-192.
- [12] Myles Edwin, M. (2012) *The globalization of Tesla Motors: a strategic marketing plan analysis*. *Journal of strategic marketing*, 20(4), pp. 289-312.
- [13] Matt, R. (2018) *Tesla's safety problem* [J]. *Electrical Apparatus*, 71 (11), pp.22-23.
- [14] Anon A. (2015) *Tesla's New Battery: The Future Is on the Wall*. *The Electricity Journal*, 28(6), pp. 1,4.