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The Global Business Environment
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Lecture: Dr. Kenny Tang

ASSIGNMENT - 1

Environmental Analysis of Electric Vehicle Industry

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Table of Contents:

Executive Summary	3
Introduction	4
Electric Vehicle Industry in Europe	4
PESTEL analysis	5
Porter's Five Forces Module	7
Conclusion	10
References	11
Appendix	12

Executive Summary

This report analyses the external environment impact of the electric vehicle industry. In order to examine the industry, factors which influence the market are discussed such as political, economic, social, technological, environmental, legal (PESTEL analysis). This part of the report shows how these factors impact and contribute to the success of electric vehicles and how the traditional vehicle market changes. After which Porter's Five Forces is used to indicate the current situation of the industry. Each level of forces is indicated by three ways: high, moderate and low. The forces which are discussed are the bargaining powers of suppliers and consumers, threat of new entrants and competition among the existing firms. The report examines the stability within the industry and responsibility performed by the public. To conclude a brief summary is provided at the end of this report which summarizes the key findings from the study.

Introduction

The new generation of cars has been adopted around the world both nationally and internationally. Electric vehicles (EV) is the greener way of transportation answer to the global climate crisis countries are trying to impose. The increased use of electric vehicles in many countries indicates the demand of the products is increasing as customers are adopting a responsible behaviour towards buying. (McKinsey &Company). Europe is seen as the most significant region where the adoption of electric vehicles is increasing, however the industry is established to enter other regions such as Asia. As demand is growing, sellers are becoming more interested in starting to offer more EV products, in order to boost their profits, tackle the threats of competition and provide updated trends. The picture of traditional automotive is transforming and new products are introduced. By the help of the government and economy the EV industry is growing. The report examines the factors which cause this transformation and discusses how the electric vehicle industry might develop in future.

Electric Vehicles Industry in Europe

The sales of electric vehicles is increasing in Europe every year as the popularity of electric vehicles is boosting. The main factors which impact the electric vehicle market are industry, demand and government stimulus. (Statista,2019)The dominated Europe countries which adopt the use of electric vehicles are Norway, followed by Netherlands, Germany, France, UK and Spain. This innovative type of vehicle introduced in the market increases the competition in the automotive industry forcing companies to introduce new modern products. Therefore as the diversity and availability of electric vehicles increases the industry will meet more the requirements of customer segments, which would result in EV becoming more attractive to clients.

PESTEL Analysis

The factors mentioned below outline the important factors that build the business model of the electric vehicle industry.

Political:

European Union policies introduced recently impact the electric vehicle industry massive. The countries are becoming more aware of environmental friendly products and therefore they introduce environmental friendly regulations. For example most European countries have tried to reduce the number of diesel cars, by aiming to ban all diesel cars by 2030. Such as in Germany the government has introduced Baden-Wuerttemberg plans to ban the older diesel cars. This would increase the sales of electric cars as customers will not have another choice. And in UK the government is giving out a premium for older diesel cars in order to help buyers to buy electric vehicle. The political factors work in the favour of the EV industry. The intention of government for the introduction of these new laws is to cause decrease in oil-intensive transport, which build place for the new generation of vehicles. (Jenn, A., Azevedo, I. M., & Michalek, J. J. 2016)

Economic:

European countries try to stimulate the growth of the electric vehicles industry by passing fiscal policies. Such as the introduction of tax breaks, special driving privileges and subsidies introduced in countries like the UK try to pursue drivers to buy electric cars. The UK government pays back one time premium of the oil-based cards to buyers for energy cars. The economy supports the EV industry to allow owners of this type of vehicles to benefit from premium joggers or tax exemptions, leading to a healthier economy with stable currency. This new generation industry builds new jobs available at a higher labour cost, which result in lower unemployment rate.

Social:

The issue around climate change has been increasing during the years and people's awareness regarding this topic has grown. Therefore it now becomes a social responsibility to the country to ensure they adopt a greener lifestyle. In fact this impact to society and the buyer mindset has changed. Consumers are more likely to pay attention to company social responsibility as customer responsibility has also increased. Such as in Norwegian 29% of EV buyers indicate the main reason for their purchase "environment" As a result customers are more likely to purchase green products. Therefore companies need to ensure they sell products in the market which meet customer needs in order to gain competitive advantage in the industry. Due to new government regulations passed EV are seen as cost saving and buyers prefer to have a chance to recharge their vehicles at home. This is seen as attractive to buyers.

Technological:

The technology develops from day to day leading to new innovations in the market, companies still need to be up to date with such a rapid change. Customers are willing for updated technology such as quicker charging as a result in order to meet demand companies need to come off with updated technology as technology is changing rapidly. Battery range, better fuel-efficiency, and many other upgrades are required to be pointed out while manufacturing electric vehicles. Companies need to be constantly updated with the new technology introduction , especially from their competitors and the rapid change of technology makes the existing one look out of date. Therefore companies need to invest in their research and development in order to launch products which are innovative to allow them to hold high market power, which is the key in this industry. Technology is seen as having the most impact on the electric vehicle industry.

Environmental:

The environmental factor is the biggest element when it comes to the electric vehicle market. The popularity of this vehicle has increased as a result of the environment concerns and this is when sales has increased. Global warming is the key reason for the climate threat as a result of NO₂ and CO₂ gas emissions caused by the traditional gas vehicles. Therefore the introduction of electric vehicles is seen as a greener alternative to the traditional vehicles which were causing massive global warming. The reputation of electric vehicles is positive and brand image benefit as they work in favour of the environment, implies attention to society and people. Those environmental factors push traditional car manufacturers such as BMW to manufacture electric vehicles in order to build a positive brand image, sustain a competitive market and attract eco-friendly customers. The environment factor has impacted on the traditional way of cars manufacturing. (McKinsey & Company)

Legal:

The new legal banned environmental regulations are important for the electric vehicle industry growth. Such as the bigger cities which are legally bound to decrease the gas or oil car production will provide stability in the electric vehicle market. As CO₂ regulations like 2019 UK Diesel charges are tightened every year, traditional cars are most likely to go out of the industry by 2030 and be replaced by partially electric or fully electric cars. This would result in growth of the electric vehicle industry and strong position. Legal banded regulations will be becoming stricter resulting in positive impact on the EV industry. (Reinhardt, R., Domingo,)

All the factors that were mentioned above contributed massively to stability of the industry. In order to build a better understanding of the current industry environment, Porter's five forces analysis has been discussed below.

Porter's Five Forces Model

Bargaining power of suppliers: Moderate

Multiple companies are now focusing on the production of electric vehicles including organizations which were focused before on the traditional car manufacturing

industry, therefore the bargaining power of suppliers while setting a price of the products remains high. The brand image of electric vehicles is building but the traditional car manufacturers remain at high popularity and sometimes preferable, therefore the EV industry cannot still hold ultimate bargaining power over the industry. As there are few suppliers in the industry the labour cost of the EV is likely to remain high. However this is likely to change sooner due to environmental regulations more suppliers are likely to enter the market which would reduce the price of the product. (Jussani,A 2015)

Bargaining power of buyers:Moderate

There are a moderate number of suppliers of electric vehicles in the market, therefore the power of buyers remains moderate, as there is less competition in the market. The number of responsible buyers remain low and the industry is growing slowly. As the price of EV is still high and considered for rich people the demand of electric cars is lower compared to the traditional ones. This means the number of sales are still low and it weakens the bargaining power of buyers. Once the EV becomes cheaper and more available the bargaining power of buyers would be higher. The market remains oligopoly therefore the overall bargaining power of buyers remains lower.

Threats of New Entrants: Low

In order to compete in the electric vehicle market a company requires high capital for high cost of production materials, high economies of scale for new entrants and strong brand image. Therefore it is extremely difficult for a new company to enter the market as it requires a big investment in order to compete with the other organizations. Technology remains an important factor for this industry. Without exceptional technological advancements it is impossible for a new company to create a strong brand image and without this strong brand image the company cannot cover their high cost. With all the factors mentioned above the industry has built up high barriers to entry. (Klemperer, P. 1995)

Threats of Substitutes: High

The main substitutes of the electric vehicle industry remain the traditional vehicles which cover major threats to the market. The high selling price of the electric vehicle is one of the main reasons why buyers are still buying the traditional vehicles. Hybrid cars are entering the market sooner than EV. Therefore the high capital required to enter the market and less switching option to buyers result in less number of sales. However it is likely that the traditional vehicle will reduce during time and electric vehicles will reduce the threat of substitutes.

Competition of existing competitors in the industry: High

The technology keeps increasing and companies are constantly trying to build advantage based on technology to bring out innovative products. Therefore promotion is important for this type of industry. The use of aggressive promotions campaigns are common among the existing competitors in order to gain customer attention. Companies are constantly trying to introduce better fuel efficient products to attract customers. The low switching cost to the buyers adds extra force to the existing companies in the market. The high level of competition in the market stimulates companies to produce high quality products as the selling prices remain high. As traditional vehicles are entering the market the competition is increasing. (Bridie Schidt 2019)

The factors mentioned above summarise the impact they have on the success of the EV industry.

Conclusion

The report analyzed the external environment of the electronics vehicle industry. The research had discovered the transformation in the traditional car manufacturing industry. It had been concluded the electric vehicle is the future of the transportation market, and even if it is growing slowly it is likely that by 2025 this would be the only transportation. The buyers are likely to almost buy electric cars as they serve in 2favour of the environment and buyers want to show responsible buying. The number of competition is likely to increase and the selling prices of EV will be lower, therefore buyers will purchase them more. Technology is the key for success of EV companies in order to gain competitive advantage and to hold high market power. Non-environmental friendly vehicles will reduce in popularity and electric vehicles will be manufactured by most suppliers.

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Appendix:

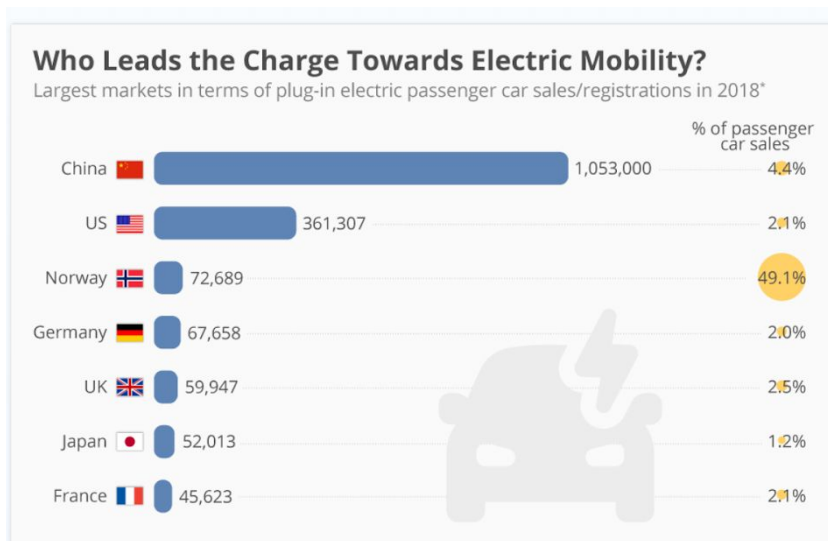


Figure 1: The leaders of Electric Vehicle