5. Critical External Environmental Analysis – (EFE). PEST analysis

5.1 Political

Since political is more related to the critical success factor about compliance with local and international standards (Foley, 2018), the political situation regarding the announcement of various government regulations could cause many impacts mainly profitability on the automobile industry (BEA, 2018). 2016 was an excellent year for the U.S automobile industry (figure 1) due to sales of the new car reached the highest record of 17.55 million. This sale was upward because of low-interest rates, low gas prices and lower unemployment rates. As General Motors headquarters from the United States, it was beneficial for General Motors (Dealercenter, 2017).

On the other hand, National Automobile Dealers Association forecast vehicle sales may decrease (CenterAutomotiveResearch, 2017) because of the uncertainty of President Trump policies regarding infrastructure spending and tax cuts that can increase General Motors new products but this resulted in vehicles more expensive (Bloomberg, 2018).

Furthermore, the investment situation developed by the government can decide the growth or fall of the automobile industry (Financialtimes, 2015). If governments propose interventions to support the growth and expansion of the automobile industry, then more investment will come in the industry which influences to high-quality production and more use of automobiles (figure 2).

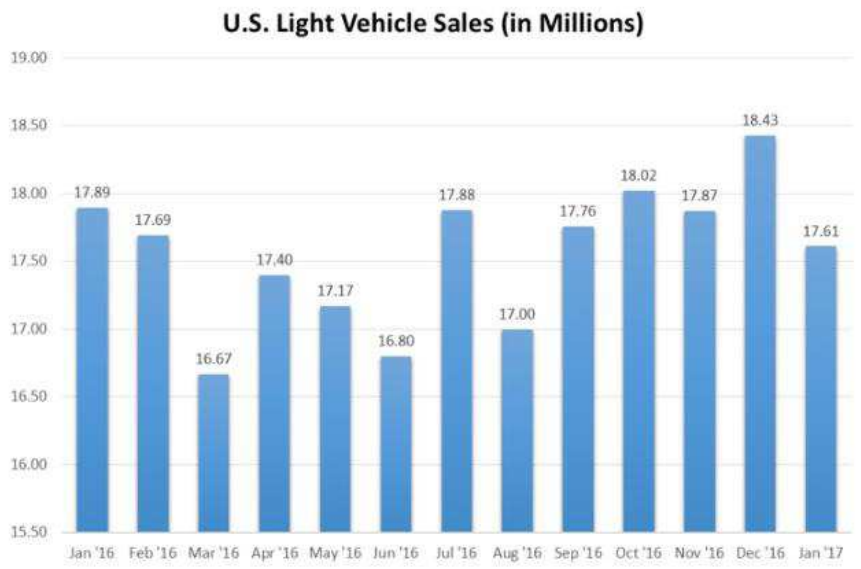

Figure 1: U.S Light vehicle sales (Dealercenter, 2017)

Government intervention in automotive

Industry	Brazil	China	South Korea	United States
Government objective	Accelerate domestic growth	Protect with technology access	Promote self-reliance	Increase industry sustainability
Policy support	• Encourage import substitution • Promote FDI with 98 percent local content • Use free-trade agreements to promote exports	• Allow joint ventures with up to 50 percent FDI if they maximize local content and localize R&D • Forbid investment by Chinese private companies	• Permit some Korean conglomerates to enter into foreign partnerships • Support clusters, institutes, and R&D • Create technical autonomy in parts	• Build regional and interstate highway system • Promote vehicle safety • Stipulate pollution control and fuel efficiency
Policy impact	• Expanded domestic and export markets • Created local parts industry • Left limited local technological capabilities • Harmed domestic brands and skills	• Brought influx of global firms • Invested in local skills development • Threatened intellectual property because of cross-holding • Led to struggles by domestic brands	• Increased Korean firms' technological prowess • Enabled synergistic learning • Created oligopolistic domestic market • Fostered export-dependent growth	• Improved infra-structure to drive domestic demand • Led to sustainable industry practices • Allowed new product imports from Japanese firms

Figure 2: Government intervention in automotive (ATKearney, 2019)

5.2 Economic

Economic forces are also of particular importance in the context of the automotive industry. When the economic conditions are right, the sales of vehicles can remain high (Yilmaz & Ustaoglu, 2013). Over the last few years, prices of vehicles have increased because of the rise in inflation (Milligan, 2017). Price of necessary commodities such as crude oil and fuel also influence the automobile industry. When oil price rise, the prices of the automobile and spare parts will also have an effect (figure 3).

Otherwise, when the economic conditions are not good, the sales of vehicles fall especially in developing countries (Yilmaz & Ustaoglu, 2013). The demand of vehicles is also influenced during the poor economic condition (transportgeography, 2019). Although automobiles sales in developed countries are stagnant because most people have already owned their automobiles, but innovations such as making electric cars can improve the sales of automobiles (figure 4).

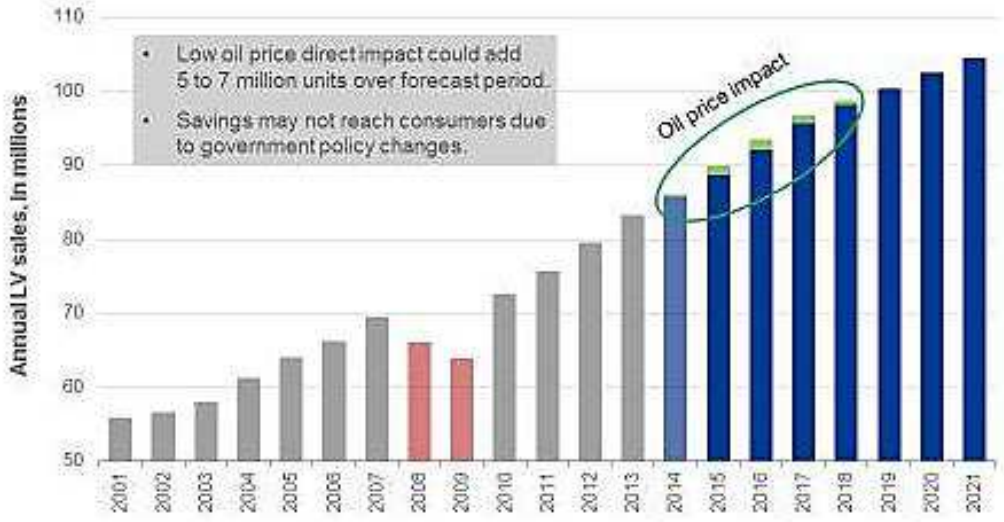

Figure 3: World Light Vehicle Sales Forecast.

Outlook optimistic from US/Europe recovery and China market growth (Robinet, 2015)

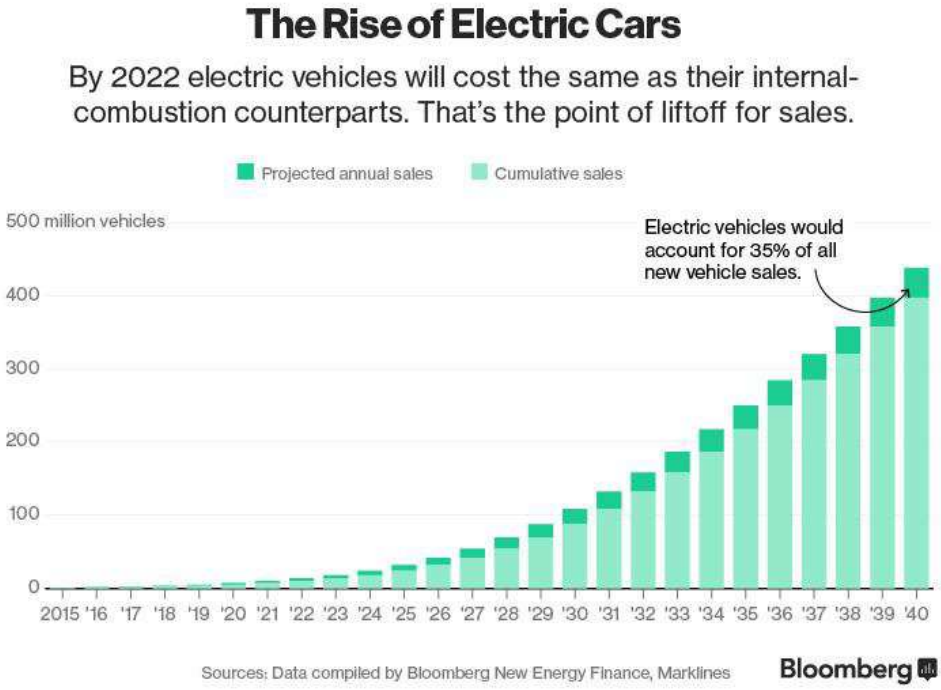

Figure 4: The rise of electric cars (Worldeconomicforum, 2018)

5.3 Social

The automobile industry has transformed the whole society. The vehicles that were produced for upper class now become a need for everyone (History, 2018). It becomes a big concern regarding critical success factor specifically in the brand image because nowadays vehicles becoming a major part of society that may influences people lifestyle, health and environment (Jamal, 2014). However, people in developed countries have now begun to believe that automobiles have unfavourably influenced their environment and health. That is why most people in developed countries prefer using another healthier choice like cycles or walk (figure 5).

In contradiction, social trends which change continuously also affect the generations especially gen Y to buy the vehicle (figure 6). Moreover, the changing of social trends can affect the popularity of the brand and can make the older models obsolete so it increases the

number of vehicles in the road which impact traffic jams that can be detrimental because of time-consuming and increasing road accidents (de Souza, et al., 2017).

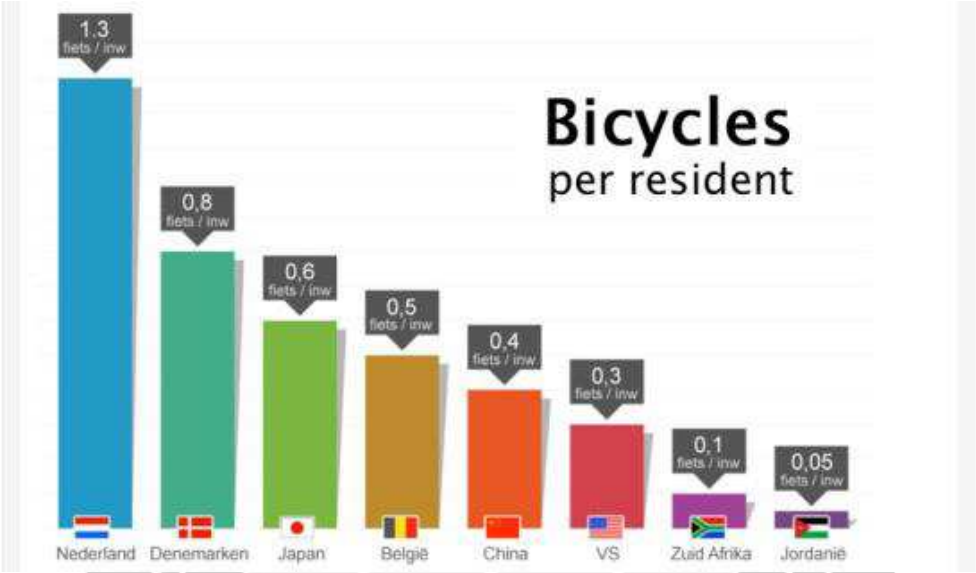

Figure 5: Cycling rate in some countries in the world (bicyledutch, 2017)

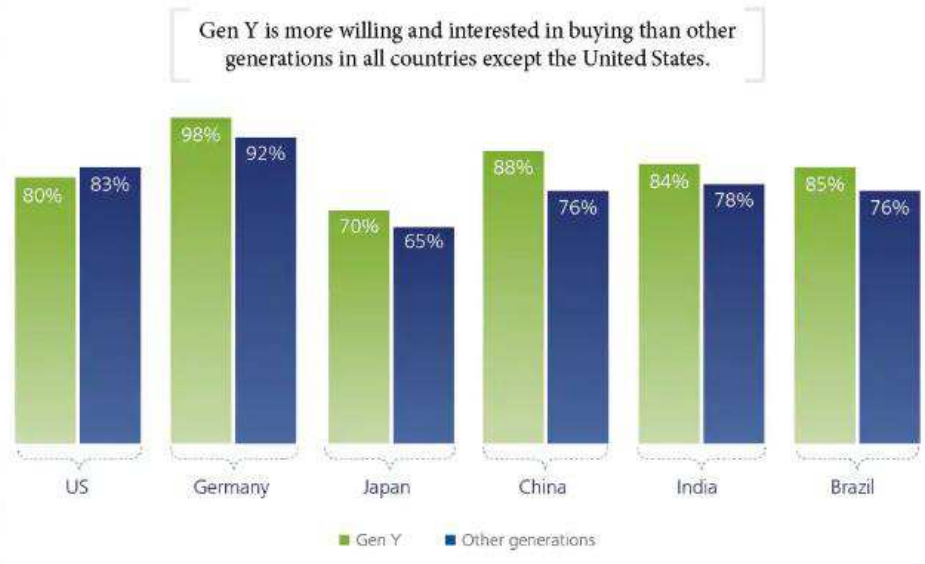

Figure 6: Graphic gen Y is willing to buy vehicles (deloitte, 2014)

5.4 Technological

Technology and innovation have become important determinants of market share in the automobile industry. Since consumers are becoming more knowledgeable about technology, they want automobile manufactures to complete vehicles with the latest features that have become one of the biggest challenges for the automobile industry (EY, 2016).Therefore, the more innovative the company, the more developed the company and it is closely related to the critical success factors about Technologies and R&D of design (Atalay, et al., 2013). Moreover, the Automobile manufactures invests most of its money for research and development to develop low emission technology for vehicles (Marketline, 2018).

In addition, the sales and market share of the low emission vehicles are high in the UK. It indicates that technology is one of the most necessary factors which affect the performance of the company (Figure 7). Among this new technology, the trend in term of improved fuel consumption and emissions reduction has become more focused (Fontaras, et al., 2016). It makes companies in the automobile industry especially Toyota, Hyundai and General motors is achieving the goal to improve fuel economy (Thenewyorktimes, 20197).

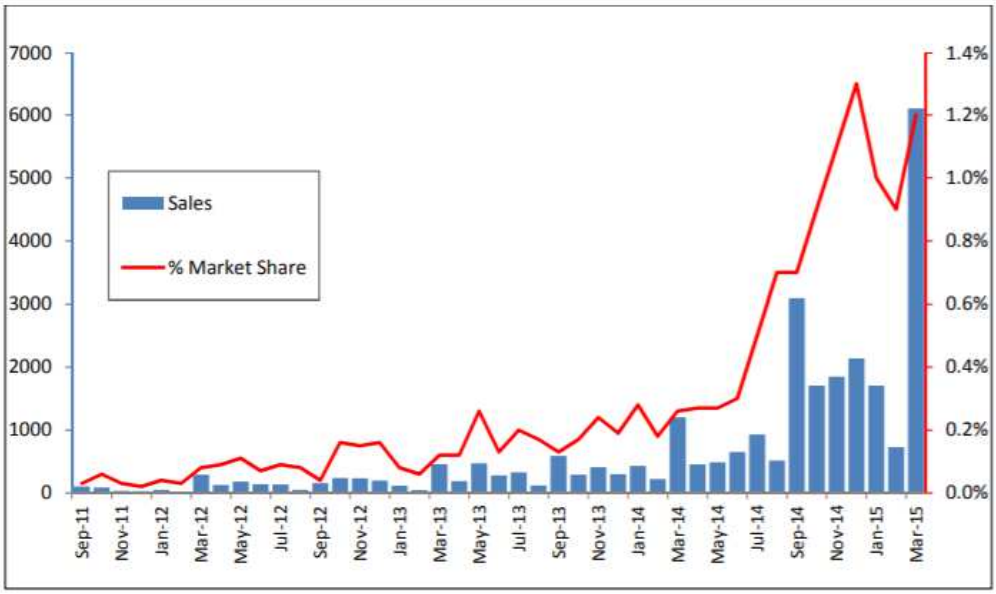

Figure 7: Sales and Market Share of Ultra Low Emission

Vehicle (ULEV) in the UK over time (Office for Low Emission Vehicles, 2015)