Good research paper on the future of electric car

Business, Company

The idea of developing an electrically powered car has been around for more than a century now. This was mainly as a result of the increasing need to reduce the number of oil powered automobiles currently in use because they greatly contribute to environmental pollution and the ever fluctuating oil prices and unpredictable supplies as was observed in the oil crisis of 1970s. A significant breakthrough for this idea was in 1888 when the first electric car was made. It became popular in the 19th and early 20th century majorly because it was less noisy and produced low emissions. However, its main competitor, the gasoline using cars had an upper hand because it would go for longer distances thus were more preferred by the consumers which made its popularity to go down. As a result, the production of electric cars went down. However, there was renewed interest in reviving the electric car production and increasing the number of these cars on the road after the oil crisis of the 1970s and part of 1980s which showed that relying on oil could be disastrous. Many of the major car manufacturing companies including the BMW are now working hard to produce electric cars that can cover more distance without having to recharge. In some states in the United States, the number of electric cars in use has increased in the recent past as is also observed in China. Despite these improvements in the production and consumption of these electric cars, still they face many challenges concerning increasing their market base, reduce their prices and increase the amount of distance they can cover on battery without. The future of these cars in the current economy looks promising as the following essay seeks to show.

The car producing companies have in the recent past invested heavily in the

development of much improved models of the electric. The current urge by the many nations and international organizations to reduce greenhouse gas producing cars on the road and increase the number of environmentally friendly cars means the market base for these cars will increase. The effects of such a shift in demand on the car producing companies will be for them to reduce their production of the oil consuming cars and increase the production of electric cars. This will force them to restructure their productive system since they will no longer need some of the old machines that were used to assemble those cars with internal combustion engines. This shift will at first affect incomes of individual companies since they will need to change the methods of advertising. Most of advertisements for new products from any company are normally very expensive and it takes a lot of time for customers to be content with the quality of the product on offer. This means that for the period the companies will be busy advertising the electric cars, the sales will be low and hence returns will be meager. However, the tide will turn in their favor after they win the trust of their former customers and the demand for the cars goes up. The costs of producing electric cars are very high when compared to the costs of producing fuel consuming cars. This means that these companies will need to increase their funding in order to be able to increase the production of the electric cars. The high cost of production will have negative effects on the companies in two ways; on one hand they may push some companies into debts if they are forced to borrow capital for starting the large scale production. This can also force some of the companies to be slow in shifting from the production of fuel consuming cars to the production of electric cars.

On the other hand, due to the high costs of producing one car, the price of these cars in the market will be high which, according to the law of demand, will lead to a reduced demand for these cars in the market. This will further increase the financial woes of the companies since they shall have spent a lot to produce the cars but will not be able to sale as many of them in order to make profit. The amount of money that is spent on the research to develop a battery that can last for longer than 500 kilo meters is very high. Nonetheless, given that many governments are hell bent on getting a long term solution to the ever increasing greenhouse gas levels in the environment, some, like the united states, have promised a reward of 10 million dollars for any company that will successfully develop a battery that can go for at least 500 kilo meters. This kind of incentive will help the companies buffer their expenses in research and will encourage them to go an extra mile in developing more improved electric cars. Equally, governments can help reduce the financial woes of the car manufacturing companies by giving them subsidies and reducing the amount of tax on these companies to allow them venture of the electric car production. However, in overall, after the initial constraints the companies will face when they start producing electric cars, the future market is very promising and the returns will be beyond their expectations. Hence, they should be encouraged to venture into the business.

The current market share for electric cars is very small. This is because electric cars currently in the market can run for between 100 and 250 kilo meters before they run out of power unlike their competitors (the fuel consuming cars) which can run for very long distances. Additionally, the

lower market share is compounded by the fact that the cars are very expensive compared to their fuel consuming counterparts. They go for between 109 000 pounds and 150 000 pounds. This has significantly reduced their demand. Equally, the time these cars take to charge is up to 8 hours and the charging stations are not as many in those nations that are advocating for the adoption of these cars. Moreover, the private charging systems are relatively expensive to purchase with some going for 4 000 pounds and charge for 8 hour and some 8 000 and charge for up to 6 hours. This market share can, however be increased to rival the other types of cars by bettering the standards of these cars. One, the batteries should be made to last for longer than 500 kilo meters. This will significantlyappeal to customers who are intent on buying cars that can run for longer distances with lower chances of getting stranded in an area where they cannot get a recharge. The respective governments should also increase the number of public charging stations so that people can easily get a recharge if they run out of power. Additionally, subsidizing the costs of buying a car and also reducing the taxation on those who own electric cars will help increase the market share of electric cars in the current and future economy.

The electric car will have many benefits on consumers if their consumption increased. These will include lack of the gear changing system which is a significant nightmare in driving fuel consuming cars. These cars do not also have the vibrations common with the fuel consuming cars and will even be more comfortable with the elderly population who have health problems and need comfortable cars. They also have less emission and as such will be the most comfortable car for those who have asthma. The cost of using these

cars will be less after purchasing them because they will be able to save the amount of cash spent on fuel pumps and instead will be paying lighter bills for electricity.

The benefits of these cars in the environment are a mixture of good and bad effects. On one hand, they are environmentally friendly because they do not emit greenhouse gases. This is positive news for agencies advocating for environmental conservation who are worried of the current increase in temperature due to environmental pollution. Additionally, they reduce the noise pollution popular with combustion engine cars since they do not produce noise. These environmentally friendly benefits are dependent on one condition; that the source of the electric power be natural. This can be the case if the electric energy used is produced using hydro power, geothermal power or sunlight. In some nations these are the significant sources of electricity hence introduction of these cars will be a great benefit.

On the other hand, introduction of these cars can be an environmental disaster if the source of electricity is dependent on unnatural sources. This includes cases where electricity is produced using coal. In these areas, the amount of coal that will be needed to produce enough electricity to power the electric cars will be so large that the amount of carbon four oxides emitted into the environment will increase proportionally. This will further increase the amount of greenhouse gases in the atmosphere hence more global warming. Additionally, in some countries where electricity is produced using nuclear energy, many other adverse effects will follow. For instance, environmental disasters like earth quakes which hit Japan resulted in the destruction of the power plants which had even worse effects in the

environment. The problem of disposing the nuclear material refuse will be even more significant if such plants are increased so as to cater for the increased demand for electricity to power the electric cars. Another problem will be how to dispose the lead-ion batteries after they are used up. This is a real problem because the used batteries are not suitable for disposing in landfills. Many of the developing nations lack enough technology to develop proper disposal mechanisms for such refuse and hence it will pose a real environmental danger. Until the disposal mechanisms are developed, using these cars will only lead to more environmental pollution.

It is noteworthy that some of the advantages of having such cars can also prove to be the disadvantages. For instance, the fact that these cars do not produce noise can be disastrous to other road users. For instance, blind people who are reliant on sound to move from one place to another will be significantly endangered because they can easily be knocked down by a speeding car which cannot sense its approach. This has led to others speculating the need to have the electric cars made with gadgets that produce sound to emulate the internal combustion engine cars. The good news, however, that is there has not been any statistical change in the number of accidents caused by automobiles since the introduction of the electric cars. Despite the statistical assurance of the safety of these cars and the relatively low fatalities due to their not producing noise, it is still essential to ensure that there are some gadgets that produce sound.

The electric car has undergone a lot of developments ever since the first one was manufactured in 1888. The need to develop these cars is driven by the goal to produce more environmentally friendly vehicles. However, the high

purchase and maintenance costs of these cars have limited the number of people who own them. The future of the electric cars is very promising if the necessary steps are taken to ensure more of these cars are introduced in the roads. It will be environmentally safe, economically savvy and technologically very encouraging to have these cars gain more of the market share and consumer preference. The introduction of more electric cars will expand the market for these cars. A bigger market will increase their availability and reduce the cost of purchasing and maintaining one. This will encourage more people to acquire these environmentally friendly cars. The future of the world is very promising with the electric cars. The costs might be high at the beginning but the results and returns will be worth the trouble.

References

bbc. co. uk. Scottish government pledge to end car emissions by 2050. 12 September 2013. 02 November 2013.

Beggs, Steven, Cardell Scott and Hausman Jerry. " Assessing the potential demand for electric cars." Journal for econometrics (2009): 1-19.

EDTA. " Electric drive." 2013. EDTA. 02 November 2013.

npr. org. Timeline: The 100-Year History Of The Electric Car. 23 November 2011. 02 December 2013 .

Revenge of the Electric Car. Dir. Chris Paine. Perf. P. G. Morgan and Chris Paine. 2011.

The Week Staff. 10 August 2010. 23 November 2013.

Westbrook, Michael Hereward. The Electric Car: Development and Future of Battery, Hybrid and Fuel-cell Cars. New York: IET, 2001.

Willson, Quentin. Owning an Electric Car. New York: Greenstream Publishing, 2010.