

Gm case study report

Business



The report talks about the alternative sources of fuel to power the automobiles. Some of the alternatives to petrol included automobiles powered by diesel, natural gas, ethanol, propane, electricity powered by batteries or hydrogen fuel cells. Hydrogen is produced by the process of electrolysis or reformation in which hydrogen is extracted from a hydrocarbon. General Motors Inc was looking to build automobiles combining fuel cell power and drive by wire technology. They were betting big and investing heavily on developing hydrogen fuel cells for cars as they thought it to be the future of the automobile industry.

The Hybrid electric vehicle was mainly produced by Toyota and Honda and were able to sell around 60,000 units in USA alone. The technology made use of electricity produced from batteries to power the car. This technology is CEO friendly since it eliminated the emission of toxic gases that are produced by the usage of petrol as the fuel. The car can be plugged into any outlet of proper voltage and recharged quickly. Hydrogen fuel cells Hybrid electric vehicle Marketing feasibility - Customers were concerned with safety of storing large quantity of pressurized hydrogen - There were no safety concerns with battery storage.

Design feasibility - Electricity is produced by a hydrogen fuel cell - Difficult to store liquid hydrogen or hydrides - Electricity is produced by a battery - Batteries can be stored relatively easily - Average range and high efficiency - Suited for urban driving Battery recharged through regenerative braking - Highly controllable Financial feasibility The cost of fuel cells was very high at \$500 per Kilowatt. Cost of setting up hydrogen refueling Infrastructure is extremely high Battery costs were comparatively cheaper. Battery can be

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recharged in any place with appropriate voltage level easily Mental, Parapet Blatant General Motors' Autonomy Project Strategic alternatives considered by General Motors - Internal combustion engine that relied on the explosive combustion of fuel Alternative fuels like ethanol and propane Electric vehicles Hybrid concepts Hydrogen fuel cell The current strategy of GM is the basic of all which is the ICE technique that powers a piston to roll the wheels. In my view this invention is one of the greatest of all the other strategies where mechanical engineering proves its spot.

It clearly shows how a car runs on wheels. This became the dominant choice among all the firms in the auto industry.

ICE was accepted as a dominant design and firms were investing heavily in this widely known strategy. Shifting focus from ICE to alternative fuels resulted advantageous to ICE only in terms of increased efficiency or so. With the introduction of a major design improvement - the closed all body steel along with strength and rigidity, the manufacturers were allowed to reduce the expensive process of hand forming body parts.

Something which significantly differed from ICE was a Hybrid Car Concept. This was a combination of ICE with an electric motor and a battery in a vehicle.

These kinds of vehicles generated 50% greater efficiency than the ICE concept cars. The vehicle's battery stored electric power that would recharge upon application of brakes. Hybrids cost significantly more to manufacture given their twin power sources but ICE were easy to manufacture and costs much less than hybrids.

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Hence, many consumers preferred them over hybrids. Japanese companies invested heavily in hybrid technology and quickly established a strong position.

More of the Japanese made hybrids were sold during the early sass's. Hybrid vehicles were more suited for urban driving. GM placed each of the strategy into an innovation program which describes the matrixes resource using for manufacturing, purchasing, servicing, finance and marketing and finally a schedule that would hold managers accountable for results.

It viewed hybrid technology as the future that would last longer than any other alternative to ICE. According to my research hybrid technology is the future. A combination of both fuel and power gives the car an edge over other technologies in all aspects.

Any customer would look to find value in a product it buys, and hybrid concept will truly satisfy the desires. Mentioning about innovation is indeed an important stuff as all the companies are always working towards it and obtaining a major share in the industry.