

# Toyota case study

## Background

Toyota's core business was the manufacture and sale of automobiles. A successful company they have a presence in more than 170 countries.

However the vehicle industry as a whole faced with a huge threat to its survival. Oil accounted for [95% of global energy used for transportation](#) (Energy Bulletin, 2007), also other factors including energy security, concerns over carbon emissions from burning fossil fuels and increasing demands for fossil fuels (and cars) in emerging economies is pushing, and will continue to push, up the price of oil.

As a result of these factors, the cost of petrol, used to power Toyota's cars, was predicted to rise significantly, making Toyota's products less attractive to customers.

This prediction was correct, with the monthly cost of filling up an average car in 2008 now exceeding £100 for the first time in history (The Telegraph, February, 2008).

In addition, Toyota knew that automobiles were a significant source of carbon dioxide emissions and energy use. At the time consensus was growing amongst key stakeholder groups that CO<sub>2</sub> emissions were causing global warming, a process where these gases form a blanket around the Earth, trapping energy from the sun causing the climate to change unnaturally, which would eventually demand global countermeasures which were likely to include measures governing emissions from automobiles.

Both of these issues posed a severe threat to Toyota's core business as a car manufacturer. The company could predict that increased costs and changes in customer attitudes could damage their sales internationally, while governments were likely to penalize heavy emitters through taxes and legislation.

## The Challenge

The challenge for Toyota was to acknowledge the potential threat of depleting oil reserves and climate change and change their strategy or products to meet the needs of future customers.

## The Response

Toyota set up a group tasked with meeting the challenge of creating a vehicle for the 21st century, which would work within the parameters of natural resource constraints and environmental issues (World Business Council for Sustainable Development, 2005).

Toyota pioneered the concept of Hybrid (petrol/electric) technology to mass produce the world's first eco-efficient vehicle, the Toyota Prius.

The vehicle featured the Hybrid Synergy Drive which integrated aspects such as an optimum mix of electric motor and petrol engine and electricity regeneration through the braking system. This allows the vehicle to run at an optimum level in terms of emissions efficiency, generating up to 89% fewer tailpipe pollutants than a conventional combustion engine.

They Hybrid cars are also 2.5 times more efficient overall than conventional vehicles, cutting the cost for customers as they had to buy less fuel (Graham Smith, Toyota).

In fact Friends of the Earth estimated the pre-tax fuel cost savings during the lifetime of a Prius could be almost 1000 Euros, with tax saving would increase this substantially (Friends of the Earth, 2006).

While rivals in the US such as GM and Ford were forced to make major job-cuts due to the decline in popularity of their less efficient motor cars, sales of the Prius kept growing. Since the first generation Toyota Prius went on sale in Japan at the end of 1997, more than 900,000 have been sold around the world – more than 81,000 in Europe alone ([www.yourgreencar.com](http://www.yourgreencar.com), January 2008)

In addition, the manufacturers have won various awards for their work including 2005 European Car of the Year, Motor Trend Motor Trend Car of the Year 2004, Car Driver magazine's Car Driver Ten Best list for 2004, North American Car of the Year 2004, boosting their reputation and gaining backing from celebrities such as Leonardo DiCaprio.

Furthermore the Prius has enjoyed boosted the sales and profile in the UK as they have gained exemption from the London congestion charge and lower parking permit charges in some local authority areas ([www.yourgreencar.com](http://www.yourgreencar.com), January 2008).

### **What can we learn?**

By examining the external environment and acknowledging the potential threats of depleting resources and increased concern over environmental issues, Toyota have turned a threat into a business opportunity, boosting their reputation both as an environmentally conscious and as technological innovators and established themselves as leaders in this growing market.

The car industry faces many complex issues, but the introduction of the Prius provided Toyota with a competitive advantage.

### **Reporting and performance measurement**

Toyota publishes sustainability reports at group and country level. Toyota's 2007 Sustainability Report includes data on global sales of hybrid cars, showing the integration of Toyota's business and environmental goals.

Toyota reports on a range of environmental indicators, notably CO2 emissions from its operation and transportation.

The report can be found at:

[http://www.toyota.co.jp/en/environmental\\_rep/07/download/index.html](http://www.toyota.co.jp/en/environmental_rep/07/download/index.html)

Honda also manufactures hybrid vehicles and is investing in cleaner diesel engines and fuel efficient technology.

Like Toyota, GE have put sustainability at the heart of its business strategy, creating environmentally sustainable products such as fuel efficient trains and aircraft engines as part of its 'ecomagination' business stream.

### **References**

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