

**Marketing Plan for Mississippi State University Challenge X Team  
Year 4 2007/08**

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**Submitted on October 19, 2007**

## **Executive Summary**

This marketing plan will serve as a guideline for the year's outreach and marketing activities for the Mississippi State University Challenge X team during year 4 of the competition. Our strategy this year will be to increase awareness of hybrid vehicle technology, and promote Challenge X as exploring solutions to the energy crisis. We will market hybrid vehicle technology in our region by aligning the vehicle's qualities with the values and needs of our region's consumers. Research conducted using primary and secondary data will be used to understand our target audience, and to support the strategies for our marketing plan. We will execute our strategies using outreach activities, promotional material, such as print and commercials, and a youth program.

## **Situation Analysis**

1. What are the product strengths?
  - a. Better fuel economy
  - b. Better acceleration than stock vehicle
  - c. Contributes to national security by reducing American dependence on foreign oil
  - d. Produces less environmental pollutants
  - e. Appeals to the environmentally conscious
  - f. Product is currently supported by numerous government and corporate incentive programs
2. What are the product's weaknesses?
  - a. Negative and misinformed consumer attitudes towards hybrids
  - b. Its small size makes it unattractive to certain consumer groups (i.e., large families, men, etc.)
  - c. Higher costs than a stock vehicle
  - d. Hybrid SUV models have underperformed in sales relative to other hybrid models, such as compact cars
  - e. Availability of biodiesel fueling stations
3. What opportunities do you see for the product?
  - a. Gas saving SUV can be aimed at households who want to save money
  - b. Sales of hybrid vehicles are increasing
  - c. Continued reduction in the extra costs associated with building hybrids
  - d. Consumer knowledge of hybrid vehicles is increasing
  - e. Global conflicts over energy resources are producing a political and social environment in which the appeal of hybrid vehicles is increasing
  - f. Fear of global warming and climate change is producing a political and social environment in which the appeal of hybrid vehicles is increasing

4. What threatens your product?
  - a. Failure to keep the public informed on new hybrid models entering the marketplace. While there are 14 hybrid models on the market, consumers are not aware of many of these vehicles, said 2007 Powers and Associates data (Connelly 2007).
  - b. Higher prices of hybrid vehicles
  - c. Consumer misconceptions about hybrid vehicles related to issues such as safety and maintenance
  - d. Lack of customer support in this product category

### **Category Analysis**

- a. Category size: Despite the large size of the automotive market, hybrid vehicles comprise less than one percent of this market. The segment of the market comprised of hybrid SUVs is even smaller.
- b. Category growth: Current demand for hybrid vehicles, combined with rising gas prices and the potential for political, social, and environmental concerns to sustain or increase demand, suggests that growth in the hybrid market will continue. However, while growth brings the prospect of increasing revenues it will also lead to more competitors in the hybrid market. Also, despite encouraging growth on the national scale, some regional markets have exhibited a decline in sales.

### **Data Pertaining to Category Growth**

#### **SUV Sales Are Rising Nationally**

Autodata Corp. of Woodcliff Lake, New Jersey reports that through May of 2007, truck sales, including SUVs and crossovers, are up slightly at 3.48 million compared to car sales at 3.3 million (McCracken 2007).

Hybrid SUVs, on the other hand, aren't necessarily climbing in growth. As of June 2007, SUV sales were just under 35,000 units. From our research of the current literature, this could be attributed to the fact that consumers who want hybrid vehicles and the consumers who want SUVs are two different groups. The hybrid consumers want their vehicle to look like a hybrid and make a statement, and most hybrid SUVs do not do that. So far in 2007, the Toyota Prius and the Toyota Camry have made up 72 percent of sales, while SUVs such as the Toyota Highlander, Saturn Vue, and Mercury Mariner make up less than 1 percent each of the market.

#### **Hybrid Sales Are Rising Nationally**

In the first 5 months of 2007, U.S. hybrid sales rose 53 % to 143,700 vehicles compared with the same 5 months of 2006. This meant that 2.1 % of all new-vehicles sales were hybrids, compared with only 1.4% through the same period of 2006. Analysts from Edmunds.com say the cause is increased availability of popular models, such as the Prius, and a wider selection of vehicles, such as the introduction of the Camry Hybrid. They also said that the growth should continue. Consumer Reports stated that interest in hybrid

vehicles was likely to remain high if gas prices continue to rise (Consumer Reports 2007).

Alternately, a study by J.D. Power and Assoc. says that the percentage of consumers *looking* to purchase a hybrid has decreased over the past year, with 50 percent of new-vehicle shoppers considering a hybrid, compared to 57 percent from one year ago (Connelly 2007). While the decline occurred across all age groups, the greatest percentage change occurred for consumers aged 16 to 25, only 60 percent of those shoppers were considering buying a hybrid, as opposed to 73 percent in 2006. The study said that in 2006, it found that consumers often overestimated the fuel efficiency of hybrid electric vehicles, and the decrease in consideration of hybrids in 2007 may be a result of their more realistic understanding of actual fuel economy. Some interest has also been shown in clean diesel vehicles. According to J.D. Power, the percentage of new-vehicle shoppers considering clean diesel vehicles was 23 percent, compared to 12 percent in 2006.

A study done at Massachusetts Institute of Technology identified some barriers to consumer acceptance of alternative fuel vehicles. Among those barriers is the fact that many people will not buy these vehicles until many are already on the road, and in a Catch-22, more alternative fuel vehicles will not be on the road until more people buy them. Policy incentives also affect how many people buy the vehicles, but unless these are kept in place for a long time the market will not experience rapid growth. Fueling infrastructure is not in place in most markets right now, and will not be until more people own these vehicles. The fact that there are few fueling stations makes people more hesitant to buy. In a simulation representing California, entrepreneurs opened alternative fuel stations in urban areas, but not in less populated rural areas. Urban drivers of the alternative fuel vehicles then had to avoid rural areas, reducing the appeal of the vehicles everywhere. This point is especially useful to us, since our target region is almost completely rural.

Another key factor in the consumer's decision to buy is the long lifetime of today's vehicle. Given that people buy vehicles infrequently, it will be a long time before a consumer is exposed to enough alternative fuel vehicles to feel comfortable buying one. The study pointed out that even an attractive alternative fuel vehicle will not catch on without a strong and lasting promotion campaign.

### **Hybrid Sales Not Growing in Mississippi and Most Southern States**

According to a study by R.L. Polk and Co., 45 of the 50 states had more new hybrid registrations in the first three months of 2007 than in the same period last year. In all but two, Louisiana and Mississippi, the growth was in the double digits. Five states saw registrations slip, including Tennessee (down 21.1 percent) and Mississippi (down 32.6 percent) (Haldis 2007).

Data compiled by R.L. Polk and Company demonstrate that none of the top 15 states or top 15 metropolitan areas where hybrid sales are highest and popularity is greatest

(hybrid sales compared with number of residents), are in our target region of Mississippi, Tennessee, Louisiana, Arkansas, Alabama and Georgia.

### **Stage in the product life cycle**

Although nationally hybrid vehicles could be categorized as being in the growth stage, in our region our vehicle is best described as being in the late introductory/early growth stage. This characterization is based on our research, including our own survey, and the fact that some people in the area cannot identify what a hybrid vehicle is. Therefore, we will keep this in mind when marketing hybrid vehicle technology.

### **Threat of substitutes**

Toyota has recently unveiled a fuel-cell model car that runs twice as long as its existing fuel cell vehicle. While vehicles like this could be seen as a future threat to our hybrid vehicle, we feel that their impact is distant enough to not be considered a threat to our current marketing campaign. We will continue to focus on the message that hybrid technology is the next step in the future of automobiles.

### **Category capacity**

J.D. Power forecasts that hybrid sales will cool off once the vehicles hit about 3 percent of the market, around 2011. For our marketing plan, we won't take this into account; we would deal with this closer to that time. We also don't think the cooling off would be as applicable to our region since we are in an early growth stage of the life cycle.

### **Environmental factors**

#### **Technological factors**

While there is technology that is more advanced than ours, we are on the front of the technological trend that is available to consumers.

#### **Political**

Political factors should work to our advantage as most people think we depend too greatly on foreign oil for our energy use.

#### **Economic**

Rising energy prices will affect our product, but most likely in a positive way. We hope to use the price of energy to our advantage by showing how our product uses less energy, and, therefore, saves the buyer money. In our target region, the buyer is usually more cost-oriented than the average American buyer. Hybrid vehicles, ours included, do cost more than a regular vehicle. This is one problem we will have to confront while advertising.

#### **Regulatory**

We cannot see any regulatory factors that will negatively affect us. The government and other agencies sometimes offer incentives for buying hybrid vehicles. However, the governmental incentives have dramatically reduced in the past year. Many agency incentives are not currently available in our target region.

#### **Social**

The average buyer from our target region can be characterized as generally uninterested, if not opposed, to the “green” movement, politically conservative, and often do not believe in global warming. These characteristics contribute to a general disinterest in our region regarding hybrid vehicles.

In a survey by CNW Marketing Research of Brandon, Ore., the number one reason that Prius owners stated for buying their vehicle was “It makes a statement about me” (Prius 2007). More than half the respondents chose answers similar to this, far outnumbering those who chose higher fuel economy, lower emissions, styling or other factors such as tax incentives. This suggests that some hybrid consumers are a certain type of person, someone who cares about the environment, probably believes in global warming, and wants others to know that about them. This person is not typical in our region.

### **Demographic**

Most hybrid owners are 45 years old or older, according to J.D. Power and Associates data (Connelly 2007). Two percent of hybrid owners are 24 or younger, and 26 percent are between 25 and 44. Twenty-nine percent are between 45 and 54, and 24 percent are between 55 and 64, and 19 percent are 65 and older. Interest in hybrids has declined for the 16 to 25 age group faster than any other age group, according to a J.D. Power study. Regular surveys done by Toyota have found that young people show no willingness to pay extra for hybrid technology.

So far, hybrid buyers have been wealthier and better educated than car shoppers overall. Automakers are seeing that as an opportunity to market hybrid power trains as a premium feature that these customers are likely to pay extra for.

### **Competitor analysis**

While observing different ways that hybrids are marketed now, we found that some companies are selling the vehicle on other strong points besides the fact that that it is a hybrid.

Mitsubishi touts its Outlander SUV as the go-anywhere ride that carries five people with ease, has three rows, and by the way, gets a stingy 27 mpg.

BMW has introduced a concept vehicle called the X6, and is advertising it as a BMW first, and a hybrid second. Tom Purves, chairman and CEO for BMW of North America, said that the BMW customer may not be desperately worried about paying his gasoline bill, but he would like to have bragging rights that his new 7 series doesn’t just go fast, it actually uses a bit less fuel. This is an interesting take on marketing a hybrid vehicle, and one that we think will serve us well. We will try to market our vehicle similarly, reminding consumers that our hybrid vehicle doesn’t compromise on performance or consumer acceptability.

### **Customer analysis**

According to our secondary data sources, older consumers are more likely to buy a hybrid vehicle, and young people (age 18-35) are not willing to pay more for hybrid

technology. A J.D. Powers study demonstrated that females and African-American customers are most conscious of fuel efficiency. However, for some individuals fuel economy is not the chief consideration when buying a hybrid vehicle. According to a Power study, 10% of new vehicle buyers said they strongly agree with the statement: “I am willing to pay more for an environmentally friendly product.” Vehicles are usually purchased after some consideration and comparison of vehicles, and usually some research. We feel that our vehicle will stand up to this research since its performance is as good, or better, than the stock vehicle, or other vehicles of the same size and style. Our marketing will focus on these points so that they are available to the buyer when they begin their research.

Based on our research, we will primarily focus our campaign on two groups: youth (up to age 18) and males and females age 40 to 60. Of course, we will also target the general public in regards to education going on hybrid vehicles. The age group 40 to 60 is most receptive to hybrid vehicles, and going forward, reaching the youth group will be essential in gaining acceptance for alternative fuel vehicles in our region.

A study conducted by Mindclick Group Inc. demonstrated that three-fifths of people intending to buy a new car were considering buying an alternative-fuel or hybrid vehicle. Of those, five out of six cited fuel economy “as one of the most critical elements of purchase consideration” (Sawyers 2006). Mindclick separated the U.S. consumer market into six segments reflecting varying concern about global warming. An analyst for the group said that marketers should forget about eco-advertising to the 40 percent of consumers who are indifferent to or do not believe in global warming and the 15 percent of customers who are already purchasing green products. Instead, the analyst said that auto marketers are overlooking the large “sweet spot” of 45 percent of potential buyers that are receptive to environmental messages. Mindclick showed survey respondents five print ads with eco-messages to determine whether any could change consumer perception and behavior. The survey found that current advertising for hybrid and alternative-fuel vehicles is “a niche message with little effectiveness.” We will treat this information as an indicator that we should target consumers in the segment that will be receptive to environmental messages. Our future research should provide us with data on how much of our target region this applies to.

### **Hybrid Opinion Survey for our Target Region**

To make our marketing plan most effective, we needed to assess popular opinion on hybrid vehicles in our target region. However, after an extensive search of secondary data, we could not find this type of research for our area. Therefore, we decided to conduct our own survey to obtain this information. With the help of our marketing advisor, we developed a survey that presented some of the questions we most needed the answers to.

#### *Conducting the Survey*

We passed out surveys to all members of our team and requested that they get at least two surveys completed. The only stipulations we gave were that the surveys should be completed by individuals living in either MS, AL, TN, AR, LA, or GA.

### *The Survey*

The questions on the survey were general questions used to determine if people in the area are generally favorable or unfavorable to the concept of hybrid vehicles. The survey is provided as Attachment 1. We kept the survey simple so that more people would be willing to complete it. We needed some basic information as a starting point in order to determine how our marketing plan should be devised, who our target audience should be, and what our main marketing message should be.

### *Limitations of our Study*

Our study/survey was limited by time, human resources (enough people to go out and give the survey), that it consisted of a convenience sample, and it was qualitative and not quantitative in nature.

### *Outcome of the Survey*

We had a total of 23 surveys that were completed and returned to us. From these, we examined them in a qualitative way and determined that most people in our region do not think that hybrids are as good as non-hybrid vehicles. The participants cited such things as worry over replacement batteries and the feeling that hybrids are not safe. They also mentioned that the higher price of hybrids is a deterrent to them, and that some mechanics have told them that they don't work on hybrid vehicles. Many respondents made statements that showed they were not aware that any hybrid models other than small cars existed.

From our new data, we determined that we needed to make people aware of larger hybrid vehicles, such as SUVs and trucks, and to change the perception that people have that hybrid vehicles do not perform as well as non-hybrids, and that hybrids have performance and power. In response to the question "Describe who you think is the typical hybrid owner" many people cited such things as "smug", "hippies", "rich", and "tree-huggers".

## **Objectives**

- a. To educate the public about the benefits of hybrid vehicles
- b. To change public attitudes toward hybrid vehicles in our region. Position them as a vehicle "for everyone."
- c. To promote current availability of hybrid vehicles
- d. To educate public on Challenge X's role as an explorer of solutions for sustainable mobility.
- e. To educate youth on alternative vehicle technology.
- f. To make the public aware of our hybrid architecture that runs on a soybean based biodiesel.

## **Marketing Strategy**

To attain these goals, we will employ the following strategies:

- a. To educate the public about the benefits of hybrid vehicles we will emphasize the useful features of hybrid vehicles, such as being eco-friendly, the use of less foreign oil, and the fact that the vehicle retains all of the performance features of a stock vehicle. In our marketing material, we will tout the vehicle as a vehicle "for everyone" and stress how it meets the needs of the consumer, including showcasing its performance and



power. We will also try to provide materials that familiarize people with hybrids, and address issues such as repair work on the vehicle, which we learned from our own surveys was an important concern. We will also try to alert opinion leaders of our hybrid technology by staging events such as viewings of our vehicle by government officials. We also want to make everyone more aware of incentives that are offered to customers, as price was one of the main deterrents to buying a hybrid vehicle. We will likely use the website to accomplish this, and may also partner with a local car dealership.

- b. To change public attitudes about hybrid vehicles in our region, we will try to align the features of a hybrid vehicle with the values of our region. For instance, we will try to disassociate hybrid vehicles from their current reputation as being for "liberals" and "hippies." We will try to spotlight different aspects of the hybrid vehicle that are aligned with local values, such as relying less on foreign oil. We will also emphasize the "local" angle of the vehicle, emphasizing that it was built in Mississippi and that it uses soybeans as fuel, which is advantageous for farmers.
- c. To promote current availability of hybrid vehicles, our campaign will stress how many different types of hybrid vehicles are currently available. We will especially emphasize hybrid SUVs and trucks, since those models are popular in our target region.
- d. We will also continue to spotlight Challenge X's role in the exploration of solutions to sustainable mobility. The Challenge X program is the highlight of all our outreach events, and will continue to be so.
- e. We think that for a new concept to be accepted, we should focus on the youth. Today's youth will be the next generation of vehicle owners, and we want them to be familiar with hybrid technology. We will continue our youth outreach programs, and focus on educating them on hybrid vehicles.

### **Program**

- a. To educate the public about the value of hybrids, we will continue with our outreach efforts as we have in the past. This year we will concentrate on explaining hybrids more thoroughly as a concept, and work to assuage any fears or misconceptions that are associated with hybrids. We will also try to gain as many media hits as possible in order to reach a larger audience. We will begin this with radio interviews we have set up for our California trip. We will incorporate special events such as the Basic Car Care class we held last year. We will also continue to use our website as an education tool. We intend to update the website with facts on hybrids and other information that will be useful to consumers.
- b. To change attitudes on hybrids in our area, we will continue with participation in community events to reach consumers on a more personal level. We will also use a message to reach our target audience such as "My vehicle is as American as I am." This message reflects the vehicle's use of American sources of energy, and is in parallel with the values of our target region.

We want to redefine the perception of hybrid vehicles. From our research of the current literature, and our own regional hybrid survey, we found that most people view hybrid drivers as smug, elitist, or hardcore environmentalists. Since this stereotype does not match the values of people in our target region, we will have to redefine the perception of hybrid vehicles.

We will also use materials such as an updated brochure, and a commercial we will produce later this year, to communicate this message. We will post the commercial on YouTube.com, our website, and any other venues that we are able to get access to. We will also continue to distribute gas cards as we did last year, although we will redesign them to reflect our marketing message. We will target local media and niche media, such as farmers' magazines, with pitch letters over the coming year. We would like to participate in some kind of service that would be beneficial to the community while promoting environmental responsibility. This would support the "local" focus of our marketing campaign.

c. To stress the availability of hybrid vehicles, we will use our website as the main source for this information. We intend to add more information on our website to promote different models of hybrids. We would like to incorporate a quiz that questions the person on what type of lifestyle they have, and then suggests the vehicle that would best fit their particular lifestyle. We would also like to hold an event at a local car dealership that has hybrids available for sale.

d. All of our outreach and marketing activities will continue to highlight Challenge X as a program that explores alternative fuel technology. We will also incorporate information about Challenge X into our youth program, and continue to use the media as a primary means for getting information about Challenge X to the public.

e. Our youth program, tentatively called "New Generation, New Energy" will continue the outreach efforts including classroom visits and field trips to our facilities. We feel that these activities are very effective in familiarizing youth with hybrid vehicle technology. We also plan to get more involved with youth groups in our area, such as the Boys and Girls Club or Girl Scouts. This year we plan to create youth materials that we can use to communicate our marketing messages. Among these will be a youth-oriented brochure, stickers with a hybrid message, and activities centered on hybrid technology.

## **Supporting marketing programs**

### **Web site**

We will use our website to reflect the marketing messages of our plan. As mentioned earlier, we want to integrate a quiz on our website that helps the consumer find the hybrid vehicle that best meets their needs, and employ other components that will spotlight current hybrid vehicles on the market. We will also make all promotional materials available on our website.

### **Marketing research**

We will be using research as a supporting program for our plan. We have already begun research on a small scale by performing an opinion survey. However, since the hybrid vehicle is in such an early stage of the product life cycle, we feel that we need to do continuing research regarding consumer opinions and behaviors. Another reason for this is that we have been unable to find any existing research conducted on our target region regarding opinions on hybrid vehicle technology. Performing more research will give us crucial data with which to mold our plan to even better suit our target region.

For our research, we plan to conduct more face-to-face surveys, provide a survey on our website, and hold one or more focus groups that will allow us to obtain a more in-depth

understanding of the reasons why our region lags behind the nation in hybrid sales. During the remaining part of the fall semester and the spring semester, we plan to involve a consumer behavior class to assess consumer attitudes toward hybrid vehicles. We will also involve a marketing management class to help develop and implement portions of our overall plan during the spring semester. We also plan to integrate some research into our event at a local dealership, perhaps conducting in-depth interviews with customers visiting the dealership.

#### **Monitors and controls, evaluation**

For this plan, we gave a survey with one of the questions being, “Did you know that a hybrid vehicle that runs on soybean-based fuel has been developed here in Mississippi?” 14 out of 22 respondents answered no. At the end of the year, we intend to give a survey that includes this question again. Our goal is for the answer ‘yes’ to raise at least 25 percent. On the same survey we will also include other questions that give us some insight on how much of the public our message has reached.

We will also evaluate our media coverage to determine if media has been a good way to reach the public, and how much of that media carried our specific message.

We will also use our website as an evaluation tool. We hope to soon include a counter on our website that lets us track the quantity of traffic, and will record this through the year. We also may put another survey on the website covering opinions of hybrids.

#### **Summary**

Our target region has the lowest hybrid vehicle sales in the nation. Some could see this as a “hard sell” for our technology. However, we see it as a challenge to persuade our audience of the benefits of hybrid vehicles. This year, our strategy is to align aspects of the hybrid vehicle that are parallel to the values of the consumers in our region. We will then spotlight those aspects of hybrid vehicles and use them to sell the idea of alternative fuel vehicles. Specifically, we will push the message that hybrid vehicles are important because they use renewable resources from our own country and lessen our dependence on foreign oil. Since farming is an important industry in our region, we will also highlight the fact that our vehicle uses soybeans as part of its energy, which is beneficial to farmers. To do this, we will use print materials, media, outreach events, commercials, and other venues. We will also target youth to begin introducing hybrid vehicle technology at an early age to further its acceptance in future years.

## Works Cited

McCracken, J. *Wall Street Journal, Eastern Edition*. August 9, 2007, Vol. 250 Issue 33, pA8.

*Consumer Reports*. April 2006, Vol. 71 Issue 4, p18-22, 4p

Connelly, M. Hybrids aren't Youth-mobiles. *Automotive News*. May 7, 2007, Vol. 81 Issue 6254, p20-20.

Haldis, P. Survey: Overall, Hybrid Sedan Sales Growing, SUV Hybrid Sales Down. *World Refining and Fuels Today*. September 18, 2007, Vol. 2 Issue 180, p8-8.

*Prius Popularity Powered by Vanity*. [www.Hybridcars.com](http://www.Hybridcars.com). Retrieved October 10, 2007.

Sawyers, A. Hybrids gain for reasons beyond fuel economy. *Automotive News*. June 19, 2007. Vol. 80, Issue 6208, p. 28B.

## Budgets

Based on Outreach Grant of \$2,500.00

(These figures are based on past purchases and estimates based on current prices for similar items.)

Printing for brochures.....	\$300.00
Printing stickers, brochures, and other youth materials.....	\$400.00
Printing for misc. materials such as posters for events.....	\$100.00
Travel to local schools, organizations, and events.....	\$1000.00
Posters used to take to youth and community events explaining architecture of our vehicle, etc.....	\$200.00
Supplies and advertising for Basic Car Care class.....	\$500.00
Supplies for making commercial.....	\$100.00

Based on our imagination (as described in Tech Talk)

Printing for brochures, stickers for youths, and other print materials.....	\$2,000.00
Promotional items printed with our logo and energy message.....	\$3,000.00
Travel to other schools to do joint outreach events.....	\$12,000.00
Country music or Nascar celebrity to endorse our vehicle (which would be crucial in gaining acceptance in our target region).....	oh, somewhere around \$250,000.00