

Spring 2016

Getting the Green: Understanding the Market for Eco-Friendly Tires

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Recommended Citation

Mallinak, Julia E.; Sizemore, Kira L.; Moyer, Nicholas A.; Gaynesbloom, Pauline G.; and Costal, Kyle R., "Getting the Green: Understanding the Market for Eco-Friendly Tires" (2016). *Honors Research Projects*. 350.
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May 11, 2016



GETTING THE GREEN

Understanding the Market for
Eco-Friendly Tires

Project Report

The Fab Five

Kyle Costal, Pauline Gaynesbloom, Julia Mallinak, Nicholas Moyer, Kira Sizemore

Abstract

The Goodyear Tire and Rubber Company has developed a new tire that replaces petroleum with a more sustainable resource: soybean oil. Following an unexpected surge of popularity in the press, Goodyear decided to look into marketing options for this new tire. For this purpose, the research team is testing market reactions to eco-friendly products, reactions to specific tire names, and potential pricing options for the tire.

Previous research indicated multiple areas of concern, including a general skepticism towards “green” terminology, perceptions of low quality in eco-friendly products, and a lack of willingness to purchase eco-friendly products in older generations. The team decided to test the questions and concerns with focus groups and a survey. Results confirmed the skepticism mentioned in earlier research, although the public may be more open to “eco-friendly” terminology than they are to “green” terminology. However, the public is more receptive to sustainable products, although Millennials are not more favorable to these products than Generation X or Baby Boomers are. Assuming that Goodyear can emphasize the increased performance of its new tire, it may be able to charge a premium of 5% to 10%. In addition, brand loyalty to eco-friendly companies may be more important than the environmental friendliness of any particular product.

With these thoughts in mind, the team recommends a marketing strategy that emphasizes Goodyear’s overall eco-friendly efforts. Goodyear’s ability to charge a price premium will depend on its selection of a target market, but above all else, authenticity will be essential in its future endeavors.

Introduction

In recent decades, the push for a “green” business environment has become increasingly prevalent. One company to join the movement towards making environmentally-friendly (i.e., eco-friendly) efforts is the Goodyear Tire and Rubber Company. In addition to making internal efforts such as reducing waste, Goodyear has developed a tire that supplements petroleum with soybean oil. In 2012, a press release discussing the tire gained unexpected popularity. A number of online sources discussed the release, and NPR also mentioned the topic. Preexisting market research and perceptions conflicted with this reaction. Some suggested that the increased interest may be tied to the maturation of the Millennial generation. This generation is seen as more environmentally conscious and has entered the market in recent years. With these assumptions in mind, Goodyear posed three key questions to the research team:

1. Should Goodyear market a “Soybean Oil Tire”?
2. To whom should Goodyear market its new tire?
3. How much of a price premium, if any, could be placed on this new tire?

Prior research indicated a general public skepticism towards eco-friendly products. Marketers’ attempts to “greenwash” the market in the 1990’s have made people wary of green terminology. It appears that many feel that the term “green” and other related terms hold little authenticity (Smith & Brower, 2012; Lu, Bock, & Joseph, 2013; Olsen, Slotegraaf, & Chandukala, 2014). Research indicates that when people do trust an eco-friendly product, they do so because they believe that the company is eco-friendly at its core, not because a product is allegedly “green” (Lyon & Montgomery, 2013; Papadas & Avlonitis, 2014). Furthermore, the public tends to regard green products as being inherently lower quality than non-green

counterparts. Many suggest that this perceived low quality may be a factor in people's tendency to not purchase green products (Lu et. al, 2013).

Millennials in previous studies claimed to support eco-friendly efforts, although their behavior is unclear. They speak out in support of socially ethical causes and businesses, and seek to align themselves with brands that have a higher purpose (Smith, 2014; Fromm, Butler, & Dickey, 2015). However, younger Millennials do not appear likely to follow their beliefs yet. This may be due to their lack of disposable income or their lack of knowledge as to how to act on their beliefs. In contrast, prior research seems to indicate that older Millennials do tend to purchase eco-friendly products more than other generations (Smith, 2014). This may be indicative of younger Millennials' behavior as they mature.

Interestingly, a study was done observing Finnish companies between 2002 and 2010 to observe their growth related to the presence or absence of eco-friendly efforts. While the companies implementing green efforts saw overall profit growth, there was little growth following the sales of green products (Drozdengo, Jensen & Coelho, 2011; Forsman, 2013). Surprisingly, the majority of the growth was seen following the announcement and development stages of green products. The team hypothesizes that this could tie in to the previously mentioned research by Lyon and Montgomery (2013), implying that the company's overall green reputation is more important than its individual green products.

Moving into primary research, the team's goals were to further uncover the public's motivations in purchasing green products. Millennials were compared against previous generations in order to better analyze why they may or may not be an ideal market for Goodyear. In addition, people's willingness to purchase green products at a price premium was

examined. With this information, the team made recommendations for Goodyear for both further research and for potential marketing opportunities for a soybean oil tire.

Methodology

Focus Group:

At the beginning of the primary research stage, the team developed a plan for conducting two focus groups. They began forming questions designed to gain further insight into factors influencing Millennial purchasing decisions and terminology perceptions. After a question base was developed, the team reached out to a marketing research professional (Vanja Djuric) for consultation. With Professor Djuric's added insight, the team developed a series of questions that uncovered key insights into any influencers in the decision-making process, the most desirable tire features, and initial reactions to potential terminology. These questions were designed to eliminate bias and to reveal as much useful information as possible. During the planning process, the team also decided to utilize a "brain-writing" technique during the focus group, in which participants were asked a question and told to write their answer down on paper before revealing it to the group. It was the team's hope that the use of this "brain-writing" technique would help to eliminate the tendency toward group bias, when some participants do not voice their opinions because (a) they are distracted by another answer, or (b) they are concerned about going against the popular opinion of the group. In preparation for the focus group, answer sheets were created to help capture responses from participants.

During the actual administration of the focus groups, two separate sessions were held on March 4th of 2016. Both took place in the Taylor Institute for Direct Marketing. During the focus group, two moderators remained in the room to engage participants in dialogue concerning

the questions. The first focus group hosted 8 participants (6 female, 2 male), while the second hosted 6 (5 male, 1 female). Following the completion of each session, the participants were given \$10 Starbucks or Chipotle gift cards as an incentive for attending and providing insight into the research questions at hand. In order to glean insight from these focus groups, the team recorded the highlights of each focus group's discussion by note-taking during the process, collecting the participant's writings, and video-recording the events.

Survey:

Following the focus groups, a survey was also developed and launched in order to provide deeper insights into the research questions at hand, and to provide data for an eventual quantitative analysis. The survey was developed and launched in Survey Monkey, and the analysis eventually took place in both Survey Monkey and JMP. Execution of the survey consisted of three phases: developing the questions, revising the survey, and collecting the responses.

Two main strategic decisions were made going into the question development phase. Firstly, the research team decided not to specifically mention the name "Goodyear" anywhere in the survey, but instead decided to refer to tire companies in general. This decision was made because the research team knew that they would be soliciting a convenience sample of respondents in the Akron area who might potentially have a positive bias toward the Goodyear Tire and Rubber Company simply because it is an Akron-based company. Therefore, the team hoped that by using generic terms to refer to tire companies, it would eliminate any possible biases in this area and give Goodyear a better sense of what national sentiments might look like toward the possibility of a "soybean oil tire." The second strategic decision the research team made was to substitute Goodyear's idea of a "soybean oil tire" with an "environmentally-friendly

tire.” This decision was made as a result of previous focus group findings relating to terminology and sought to eliminate any unnecessary confusion surrounding the research questions.

During the course of the survey development phase, the team formed questions that sought to lend insights into the attractiveness of different tire names, the influencers in the tire decision-making process, the importance of various tire features, the potential willingness to pay a price premium, the intent to purchase eco-friendly products, and the loyalty that respondents might have toward eco-friendly companies. In addition to these questions, information on demographics (age, gender, income) was collected in order to profile participants into potential target markets during analysis.

To begin the survey revision phase, the research team consulted James McKelvey and Dr. Deborah Owens--two marketing research professionals in the College of Business Administration (CBA). With their added insight, the research team made several alterations to the first draft of the survey. First, the team decided to change the format of many of the questions from a ranking scale to a Likert Scale (rating scale). This was done in hopes of gaining more insights into how far apart each factor was ranked from one another (an insight that would be lost if one were to ask respondents to simply rank factors from greatest to least). The second major revision to take place was to simplify the wording within the survey questions. Respondents can easily become fatigued or confused if questions are unclear or too lengthy. These problems can lead to the collection of data that doesn't accurately reflect their sentiments. Therefore, it was hoped that by condensing the questions, the team would be able to obtain the best quality data possible. Thirdly, the team decided to provide respondents with some key definitions, in order to alleviate any confusion surrounding the terms used with the survey questions. The following

definitions concerning eco-friendly tires, products, and companies were provided during the survey:

Environmentally-Friendly Tire: A tire manufactured with significantly less petroleum ingredients, by substituting renewable ingredients such as soybean oil, producing a tire that performs as well (or better) than traditional tires.

Traditional Tire: A tire manufactured with the standard amount of petroleum ingredients.

Environmentally-Friendly Company: A company that consciously seeks to minimize the effects that the production of goods and services has on the environment, by going above and beyond what the government has required in these areas. This company seeks to reduce one or more of the following: pollution, energy use, waste, etc.

Non-Environmentally-Friendly Company: A company that does not consciously seek to minimize the effects that the production of goods and services has on the environment. This company is only as eco-friendly as mandated by government regulation.

Environmentally-Friendly Product: A product that was made with a conscious effort to reduce one or more of the following: pollution, energy use, waste, etc.

Non-Environmentally-Friendly Product: A product that was not made with a conscious effort to reduce one or more of the following: pollution, energy use, waste, etc.

During the survey revision phase, a beta test was conducted on the working draft of the survey. This test was inspired by James McKelvey's prompting, and sought to gain greater insight into needed survey revisions. The test was administered to 64 students who took the survey and provided written feedback on suggested survey improvements, specifically regarding clarity.

Once the beta testing was completed, the final revisions to the survey were made and the research team launched the survey and started the process of collecting responses. The response collection phase consisted of obtaining responses from three main sources. The first source was Survey Monkey itself. The software provides an opportunity to purchase survey responses from an online panel of respondents. The research team utilized some of its project funding from the CBA to purchase a number of responses through Survey Monkey directly. Survey Monkey provides metrics by which a person can choose what type of respondent is wanted to take the survey. Because of this targeting, the research team was able to obtain all of its Survey Monkey responses from “car owners” in particular. The second source of respondents was fellow students in the CBA. These students were motivated to take the survey because their professor offered extra credit for participation. The third and final source of survey responses was the research team’s personal network of friends, acquaintances, and relations. The team solicited participation from these individuals through email and word-of-mouth.

Results

Focus Group:

Findings between the first and second focus groups varied in unexpected ways. In the first focus group, participants valued (in order of lowest to highest priority) cost, purpose, and quality above other factors when selecting a tire. In contrast, the second group valued influencers, trust, purpose, and price. Both groups looked to male friends and family members and to the internet for advice in purchasing tires. The majority of participants purchased their tires at an auto shop or local retailer, although some participants in the second group purchased their tires online (e.g. tirerack.com).

The first group generally reacted positively to terms such as “green” and “environmentally-friendly,” while terms such as “soy,” “soybean,” and “soybean oil” were negatively received. The negative perception of “soybean oil” escalated when applied to tires. In contrast, the second group preferred the “soy”-related phrases to other phrases both separately and with tires. According to one participant, “green” was viewed as a label to “make themselves look less pollutey [sic],” which summarized an overall distaste for the “green” label in the second group. Both groups shared a belief that eco-friendly product features are not inherently order winners. A participant in the first group stated that “you can’t sell [an eco-friendly product] [solely] on the basis that it’s good for the environment.”

The second group was far more vocal in response to the concept of “soybean oil tires.” They began asking questions about the supporting science, its sustainability, and its durability. However, they also stated that as long as the tire had no negative trade-offs, they would be willing to purchase it. The second group was then presented with the phrase “eco-tire,” as opposed to any other tire name, including “environmentally-friendly tire.” They responded incredibly favorably, based on the perceived idea that it had increased performance qualities compared to other “green”-related tires. At this point, they stated that for a company to sell an eco-friendly product, they must first establish themselves as an eco-friendly company.

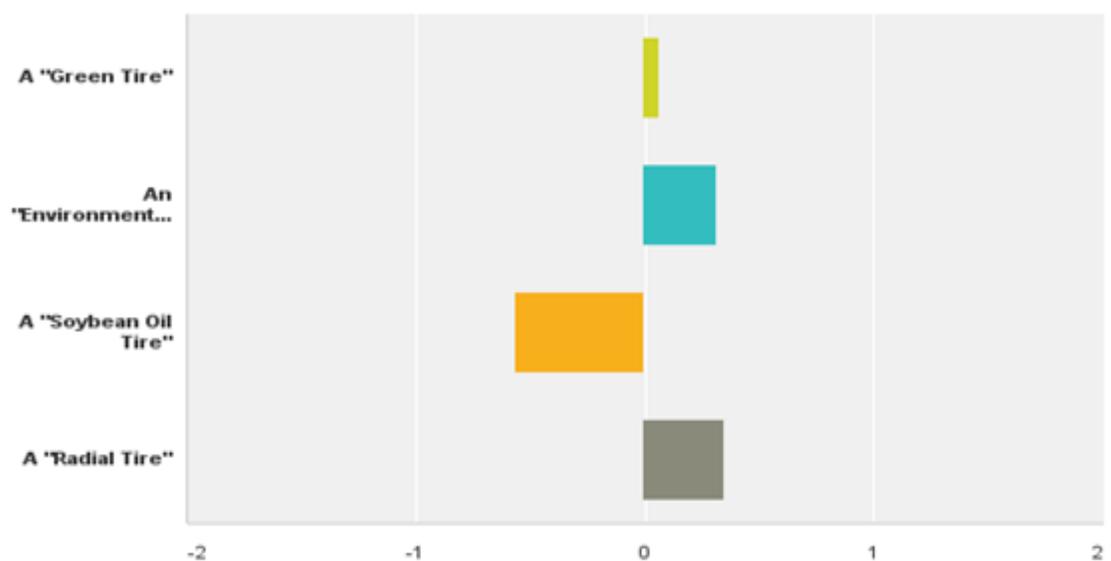
From both focus groups’ answers, it became apparent that males were the dominant influencers in the tire decision-making-process. It was also found that the terms “green” and “soybean oil” had conflicting perceptions. To warrant a purchase, participants stated that eco-friendly products needed to have increased performance aspects. They also stated that in order to effectively market these products, companies need to be perceived as environmentally conscious.

Survey:

The survey results provided a wealth of information that supported some of the team's preexisting beliefs while also providing some unexpected and interesting results. A total of 204 respondents completed the survey, with 56% of those respondents being female and 44% being male. This proportion is even enough to provide balanced insights into both the population as a whole and the genders individually. The sampling of each generation was also sufficient for eventual comparison. Of the respondents, 54% were Millennials, 31% came from Generation X, and 15% were Baby Boomers.

1.) Terminology Testing

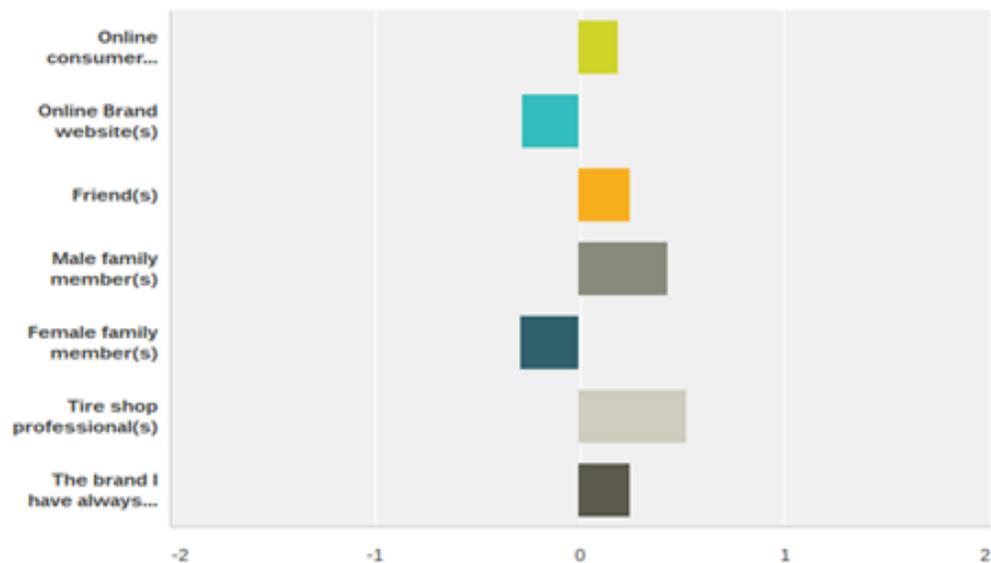
Within the survey, respondents were asked to rate on a scale from -2 (highly unlikely) to 2 (highly likely) their intention to purchase a tire based solely on the name. Participants were generally favorable to the names "Environmentally-Friendly Tire" and "Radial Tire" (used as a control in place of a traditional or "regular" tire). However, they were fairly neutral to a "Green Tire" and unfavorable towards a "Soybean Oil Tire."



Further examination in JMP revealed that generations significantly differed in how they viewed the “Radial Tire” option. While members of Generation X and Baby Boomers were generally favorable to the term, Millennials were surprisingly neutral in their views. The team believes that this resulted from the older generations knowing and understanding what a radial tire is, while Millennials likely do not know that a radial tire represents a regular tire. The team believes this could have caused a more neutral response from Millennials.

2.) Key Influencers

Respondents were then asked to rate sources based on how influential they were in their decision-making process. This rating happened on a scale of -2 (highly uninformative) to 2 (highly influential), with the most highly-rated sources being male family members and tire shop professionals.

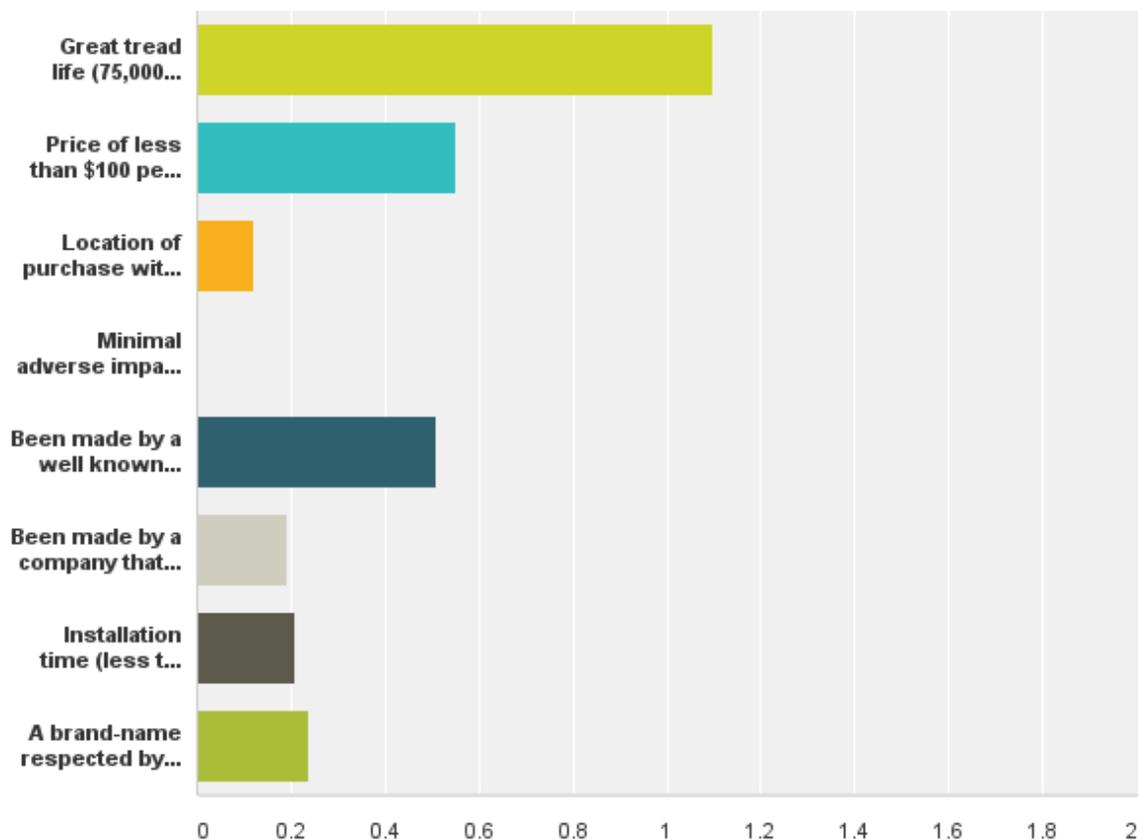


Further analysis in JMP indicated that Millennials generally relied more on male family members than either Generation X or Baby Boomers did. The team attributes this phenomenon

to Millennials' possible lack of experience and knowledge regarding the tire decision-making process, therefore going to those they trust for advice.

3.) Key Features

Respondents were told to rank the significance of several tire features based on their importance in the tire decision-making process. As one can see, the most important tire feature to consumers is tread life. No features were deemed insignificant.

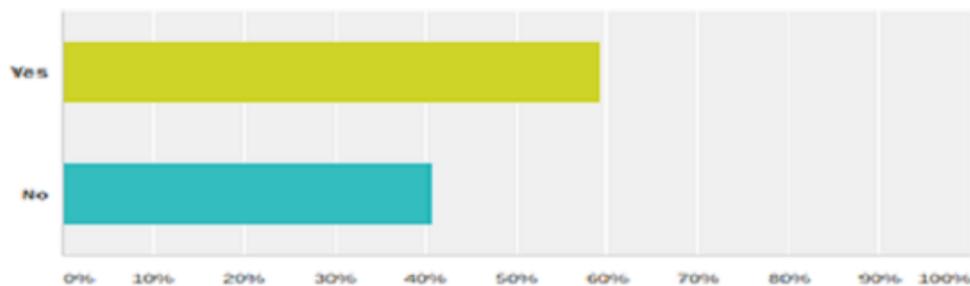


While tread life mattered across all generations, preferences varied on pricing. Both Millennials and members of Generation X valued a low price, but Baby Boomers seemed relatively insensitive to price. The team believes that this price insensitivity in Baby Boomers

could be tied to their increased disposable income at this stage of life, resulting in a higher willingness to overlook price in their decision making process.

4a.) Willingness to Pay a Price Premium

When asked whether or not they would be willing to pay a price premium for an eco-friendly tire (given that the tire was of the same quality as a traditional tire), participants responded in the following manner:

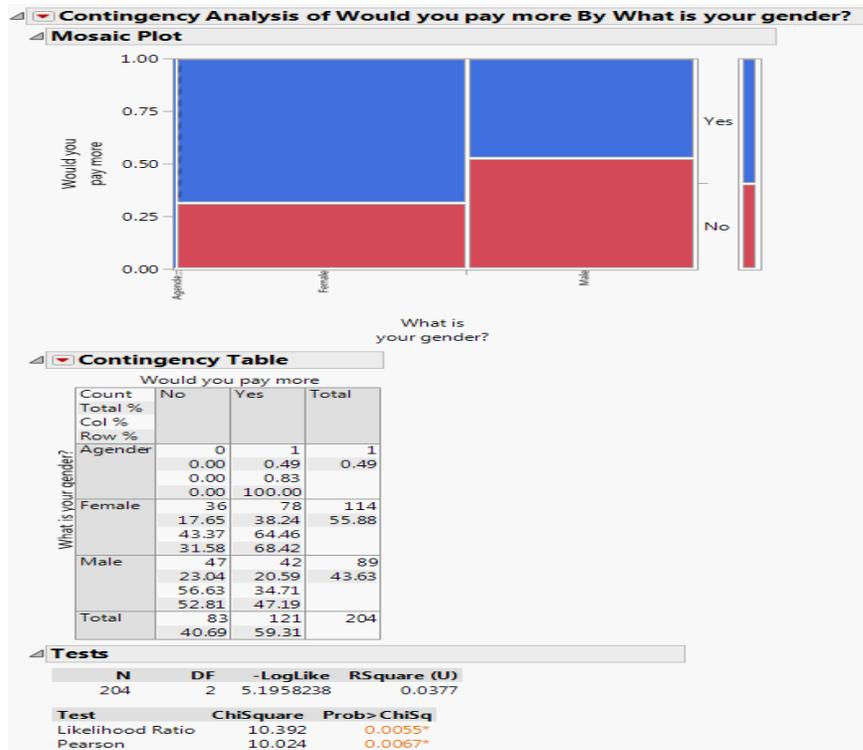


Results indicated that 60% of respondents would be willing to pay a price premium for an eco-friendly tire. Baby Boomers showed the most enthusiasm at 77%, compared to Generation X at 61%, and Millennials at 54%. Interestingly, the team discovered (in JMP) that younger Millennials seemed more enthusiastic about paying a premium than older Millennials. This finding seems to contradict the team's secondary research. The team also examined personal income's influence on respondent answers, only to find that income is relatively insignificant.

4b.) Willingness to Pay a Price Premium by Gender

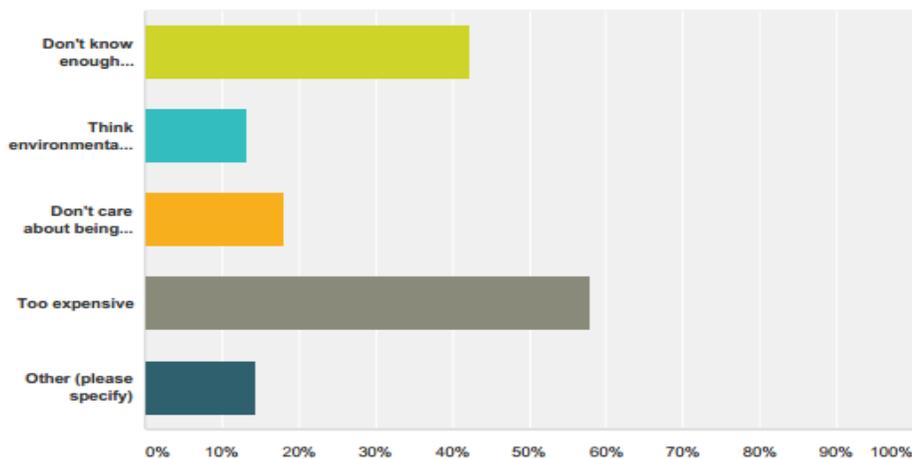
Unexpectedly, there was also a significant difference between the genders. Nearly two-thirds of the people willing to purchase the tire at a premium were women. While more women did take the survey than men, 68% of women said they would pay a premium compared to 47%

of men. Similar questions also indicated higher feminine support of eco-friendly products in general.



5.) Unwillingness to Pay a Premium

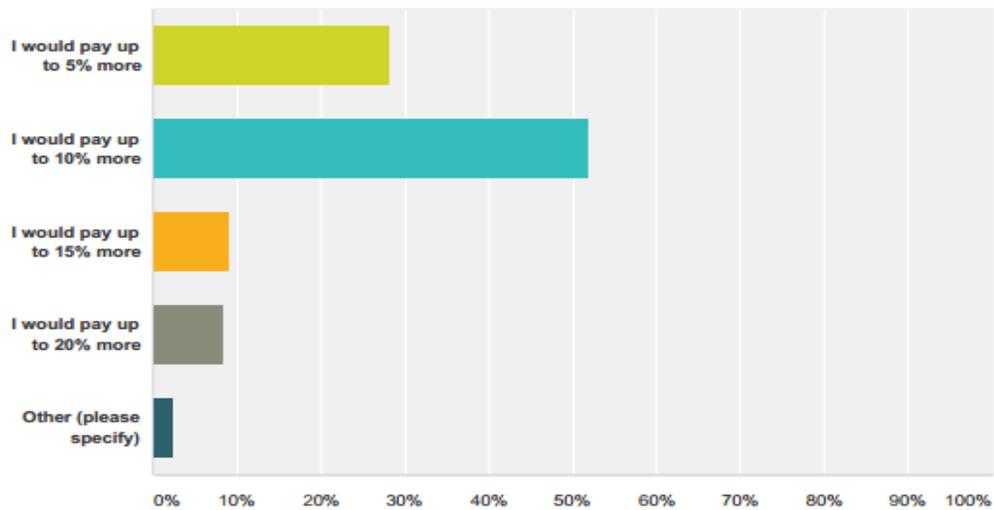
Respondents that were unwilling to pay a price premium for an eco-friendly tire were asked to select possible reason pertaining to their decision, resulting in the following graph:



When analyzing this data in JMP, the team found that Millennials and members of Generation X made up the majority of those that said the product would be too expensive. In keeping with the question regarding tire features, Baby Boomers appear relatively insensitive to price.

6.) Possible Price Premiums

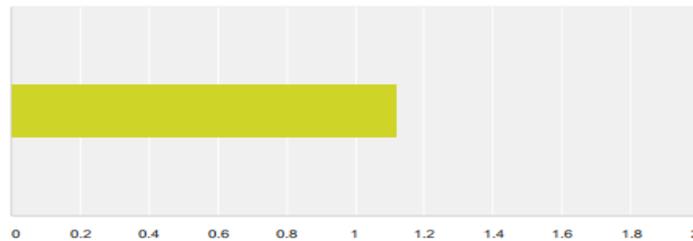
Participants who indicated a willingness to pay a premium were then asked to state how much they would be willing to pay, resulting in the following graph:



While 10% was the most common price premium, followed by 5%, the average reported price premium across all generations was approximately 10%. The team found no statistical significance between genders or generations regarding how high of a premium any one person will pay. (Note: Significance lies between genders in the willingness to pay a premium, but not in the size of that premium.)

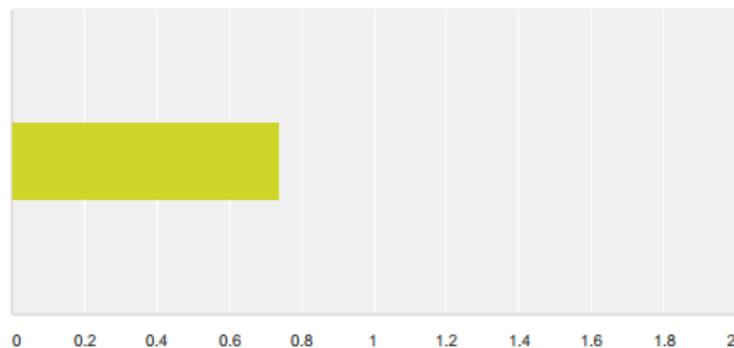
7a.) Brand Loyalty: Intent to Purchase Eco-Friendly Products from Eco-Friendly Companies

Participants were asked to rate their intention to purchase eco-friendly products from an eco-friendly company. These participants were asked to rate their intention on a scale from -2 (highly unlikely) to 2 (highly likely). As seen below, consumers generally do want to purchase eco-products from an eco-friendly company.



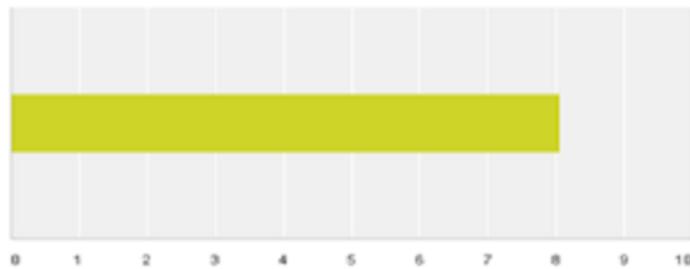
7b.) Brand Loyalty: Intent to Purchase Traditional Products from an Eco-Friendly Company

Participants were then asked to rate their intention to purchase traditional products from an eco-friendly company. Again, these participants were asked to rate their intention on a scale from -2 (highly unlikely) to 2 (highly likely). As seen below, consumers would still prefer to purchase traditional products from eco-friendly companies. The team felt that this shows how consumers may be more loyal to eco-friendly brands regardless of the specific products they provide.



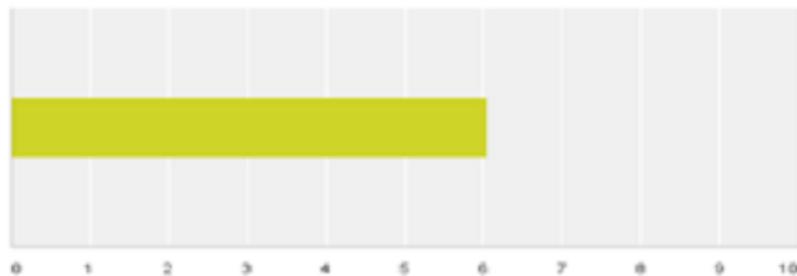
8a.) Intent to Purchase at Same Price

Next, participants were asked to indicate the probability that they would actually purchase an eco-friendly tire on a scale of 0% to 100% chance, given that the tire had the same price and quality as a traditional tire. As seen below, participants indicated on average an 80% likelihood to purchase the tire.



8b.) Intent to Purchase at Higher Price

Then, participants were asked to indicate the probability that they would actually purchase an eco-friendly tire on a scale of 0% to 100% chance, given that the tire had a higher price but the same quality. As seen below, participants indicated on average a 60% likelihood to purchase the tire.



It comes as no surprise that the intent to purchase went down with the increase in price. However, both of the above results indicate higher support for eco-friendly products than what the secondary research led the team to believe.

Discussion

As the team considered the results of the primary research, certain findings confirmed their expectations coming into the research, while others surprised them. Firstly, the team's suspicions about consumer aversion to a "soybean oil tire" were confirmed in the survey results. Although the term "soybean oil" was not officially a part of the team's secondary research, Goodyear had informed the team that the company's early efforts to explore the possibility of a "soybean oil tire" had revealed extensive consumer questioning and possible skepticism. This skepticism was repeatedly confirmed by the research team as they described the nature of their research to family members and acquaintances. Therefore, it came as no surprise, when the survey results revealed that consumers found a "soybean oil tire" to be the least attractive naming option. Also, the survey and focus groups confirmed the team's suspicion that it would not be wise for Goodyear to use the term "green" when marketing a tire. This conclusion agrees with the research done by Lu, Bock, and Joseph (2013), who discussed how the term "green" was overused in the 90s and how it is now associated with low-quality and exorbitant pricing. Perhaps these consumer perceptions explain the low ratings "green" received in the team's primary research.

However, the focus group and survey results on the term "environmentally-friendly tire," did come somewhat as a surprise. During the team's secondary research, they read from Smith (2014) that the terms "environmentally-friendly" and "green" were more ambiguous to consumers than some other green marketing terms like "biodegradable" and "recyclable." At first, this information led the team to believe that neither "environmentally-friendly" nor "green" should be used within marketing messages. Although this may be true for the term "green," the survey results indicated that the term "environmentally-friendly" has the ability to attract

consumer interest despite its inherent ambiguity. The research team hypothesizes that the term “environmentally-friendly” is more popular with consumers because this term brings to mind renewable efforts, just like “green” does, but without most negative associations. Additionally, the ambiguity of the term “environmentally-friendly” may allow the consumer the freedom to operationally define what the term means. This versatility may allow for a broader appeal.

Another term-related finding that did not surprise the research team was the discovery that the term “radial tire” ranked the highest of all the tire naming options. Learning this information was not surprising to the research team because they inserted “radial tire” into the naming comparison to act as a control. Since this tire is supposed to represent a traditional tire, it comes as no surprise that the majority of consumers would find it highly appealing. After all, this is the tire that most generations are already familiar with.

Another aspect that surprised the research team was the discovery that older Millennials are less likely to pay a premium for eco-friendly products than younger Millennials are--at least within this research study. This conclusion runs contrary to the team’s secondary research efforts, during which they came across information that seemed to indicate the opposite. This information indicated that older Millennials are more likely to make eco-friendly purchases than younger Millennials, and also that older Millennial behavior might be a good predictor of how the Millennial generation as a whole will act in the future (Smith, 2014). The team believes that younger Millennials reported higher willingness to pay a premium for eco-friendly products than older Millennials, because of the fact that most younger Millennials receive financial support from their parents (i.e. living at home) and therefore do not feel quite as price sensitive. Most older Millennials, on the other hand, are striking out on their own and are experiencing the sober reality of having to finance all their wants and needs without parental help. Given these

contemplations, the team has concluded that the younger Millennial response in the primary research is overinflated, and it too would be as low (or lower) than older Millennials' responses if younger Millennials were also forced to "fend for themselves." (Note: All Millennials responded similarly when asked about their intention-to-buy green products in general. Therefore this difference between younger and older Millennials exists only when asking about price premiums.) As to the possibility of older Millennials predicting eventual younger Millennial behavior, the team believes that this hypothesis will hold true, and that once younger Millennials start their own careers and households, they too will become more price sensitive.

However, looking at the responses from older generations, it may be safe to assume that these aversions in the Millennial generation are temporary and will decrease with time. As the research team discovered when conducting data analysis, it appears that as a generation ages, it becomes more likely to pay a premium for green products. As previously noted concerning the Millennial generation, expendable income might play some role in determining green purchasing behavior. However, during data analysis, income did not appear to be a significant factor in determining a person's willingness to pay a premium, so it is likely that additional factors are contributing to the increased support that older generations are willing to give to green efforts. One possible explanation could be that older people are starting to experience guilt for all the years that they have lived their lives in disregard to the environment. Another possible explanation is that older people recognize that they may not have much longer to live, and consequently, they want to make a positive impact on the world before they die. In any case, the data seems to indicate that the older a generation is, the more likely it is to be financially supportive of green efforts, and the research team believes that the Millennial generation will also follow this pattern as it matures.

The research team was also surprised to discover that gender is a significant predictor of eco-friendly sentiments. Going into the secondary research, the team was mainly focused on possible generational differences in the eco-friendly market, so it came as a surprise, when the research team not only discovered that generational sentiments on eco-friendliness are insignificant (with the exception of willingness to pay a premium) but also that females were significantly more likely to support eco-friendly efforts than males. A couple reasons explaining why females support eco-friendly efforts more than males could be (1) of the two sexes females are generally more empathetic to social causes than males, (2) females are generally ignorant on tires and therefore are not as consumed with product specifications and performance as males are, allowing them to overlook the perception that eco-friendly products are lower in quality, or (3) a combination of both (1) and (2). Suffice it to say, the reasons why females seem more likely to support eco-friendly efforts are uncertain and more research is needed into the female market to determine its viability. It is important to note, however, that if Goodyear decides to pursue the female market, the company needs to remember that males are one of females' top influencers in their tire decision-making process, and males are not very impressed with eco-friendly products. Therefore, if Goodyear chooses to pursue the female market, it may want to consider targeting females with promotional messages that inspire women to purchase eco-friendly products because of their environmental impact, but at the same time provide information to women on why these products perform better than their traditional counterparts. Conveying a message that includes both of these aspects would (1) resonate with female sensibilities and (2) convince males to support an eco-friendly purchase when consulted for advice. Another marketing strategy for Goodyear could be to lure women into the tire market by educating and engaging

them to the point where they do not feel the need to ask males for advice (thus eliminating male influence over female purchasers).

Finally, the research team was surprised to see respondents indicate a higher intention-to-buy green products, especially at a price premium, across all generations than the team's secondary research had indicated. One such resource, DeVaney (2015), indicated that "47 percent of Millennials would pay more for [eco-friendly] products." Interestingly enough, the team's primary research seemed to indicate that this number could be as high as 60%. However, it is important to remember that when the team asked respondents to rate their intention to pay a premium for eco-friendly products, the team stated that the respondents should assume that the eco-friendly product possessed the same quality as a traditional product. The team believes that this assumption helped to alleviate quality concerns (that most consumers have toward eco-friendly products), resulting in data that was uncharacteristically favorable. This data is still insightful to Goodyear however, because it simulates a world where Goodyear has already taken the time and money to educate consumers on why the quality of an eco-friendly product is the same or better than a traditional product. Yet, despite this education, skepticism toward eco-friendly products still remains, and support of eco-friendly products under the most optimal of circumstances currently caps at 60% of the population. The team believes that the reported intention to buy would have been significantly lower than 60% without the "equal quality" assumption. These vicissitudes regarding consumers' intention to buy are consistent with the research done by Lu, Bock, and Joseph (2013) revealing people's hesitancy to buy green products based upon quality and over-pricing concerns.

Recommendations

Based on the team's research, it is recommended that Goodyear pursue eco-friendliness on a companywide basis. The team believes that Goodyear has the potential to attract customers by offering eco-friendly products, but even more so by becoming an eco-friendly company. Unfortunately, it seems unwise to start marketing a new product as a "soybean oil tire," but rather to inform the customer of Goodyear's use of soybean oil in general. It would be much easier to explain to consumers that Goodyear uses "renewable" resources in their production process, because this kind of education will prevent unnecessary confusion about soybean oil in tires. In the research, a "soybean oil tire" created additional questions in the mind of respondents and participants, as well as doubts about quality and pricing. The terms "environmentally-friendly" and "eco-friendly" resonate better with Millennials and do not need the same level of explanation. These terms also avoid some of the negative connotations associated with the term "green." However, in order for consumers to trust these claims, it must be evident that Goodyear is taking steps to pursue eco-friendliness on multiple levels and not just releasing a single product to take advantage of consumers' concern for the environment.

During the secondary research phase, the team uncovered information indicating that green firms experience more financial gains in the announcement and development states of eco-friendly products than in the actual sale of those products (Drozdengo et. al, 2011). Therefore, the research team highly recommends that Goodyear take every opportunity to promote the company's eco-friendliness. It is recommended that Goodyear begin the marketing process by emphasizing its internal efforts as an eco-friendly company. Upon visiting Goodyear's manufacturing center, the team learned that the company does not let any excess rubber from the production process enter landfills. The team believes that promoting this type of information

would interest consumers, since it would educate them on how Goodyear is already taking steps to become more environmentally conscious.

The team also has several recommendations for Goodyear as it markets these eco-friendly tires to the public. It appears that educating the consumers on the specific function of soybean oil in tires would be extremely expensive and difficult. Therefore, the team recommends developing a marketing plan that is simple, direct and informative, for both the company as a whole and its new line of eco-friendly tires (if indeed Goodyear chooses to produce such a line). By showing the consumer that Goodyear is actively pursuing eco-friendly practices, consumers will develop affection for the Goodyear brand, and those feelings will influence the way they perceive Goodyear's products as well. To assure consumers of product performance, Goodyear should also complete in-depth testing of eco-friendly tires using NASCAR drivers. This will assure the consumer of the eco-friendly tire's performance potential.

When it comes to pricing, the team has several thoughts to offer. From the team's primary and secondary research, it seems that people are more likely to pay a premium if they believe that the performance benefits of an eco-friendly tire are greater than that of a traditional tire. Therefore, if Goodyear can prove to consumers that its eco-friendly tire actually does have increased tread life, it may be able to charge more, since tread life seems to be the most important tire quality to consumers. On the other hand, Millennials in general tend to have a low amount of disposable income, so if they are Goodyear's immediate target market, Goodyear might have to forego a price premium in order to attract this market and to ensure that Millennials' apparent intention to buy translates into actual purchases.

For future research, the team recommends that Goodyear look deeper into the seemingly empathetic female market. Even though the research shows that men generally influence women

in their tire purchasing decisions, Goodyear may be able to target both markets at the same time. When marketing to women, the company should stress the eco-friendly aspects of the tire, and when marketing to men, the company should highlight the tire's performance aspects. Conducting more research will help Goodyear determine what communication mediums and messages can be used to persuade the female market and their male influencers.

Moving forward, Goodyear should track consumer and media interest concerning its eco-friendly efforts both on the internet and on social media. The company should also monitor news articles and sales that can be attributed to its eco-friendly advertisements. If the swift reactions to Goodyear's original press release are indicative of consumer response, Goodyear will know how the public reacts to its announcements fairly quickly. In order to see if these tactics are effectively selling Goodyear's products and improving Goodyear's brand image, it is recommended that Goodyear use website tracking and analytics tools. The company should also track the in-store sales that have been generated from Goodyear's specific marketing efforts. Goodyear should expect a delay between rebranding efforts and increased profits because these efforts may take time to resonate with the public and consumers may not need to replace their tires immediately.

In the case that Goodyear decides not to take advantage of its eco-friendly messaging opportunities, the public may still find out. If this happens, consumers may wonder why the company remained silent and assume that Goodyear was trying to hide negative qualities linked to the use of soybean oil. In addition, if Goodyear decides not to capitalize on this marketing opportunity, competitors will likely achieve the same technology in time and ultimately establish themselves as the leader in the eco-friendly market. Therefore, the team recommends that Goodyear take full advantage of these messaging opportunities. If Goodyear follows these

recommendations, the team believes that the company will effectively attract and inspire consumers for decades to come.

Conclusion

In this research, the team sought to uncover the public's perception of eco-friendly efforts, the premiums people will pay for eco-friendly products, the differences between Millennials and previous generations, and the best route for Goodyear in moving forward with a "soybean oil tire." Research was completed in the form of two focus groups and a survey. From the focus groups, the team learned that the term was confusing to consumers. Participants did not favor "green" terminology either, confirming previous research. Participants also suggested that male family members were the primary influencers of tire purchasing decisions. These findings were confirmed in the survey. Participants surprised the team in their willingness to pay a price premium for eco-friendly tires, with 60% of participants stating that they would pay such a premium. Even more surprising, that premium could be as high as 10% (note: these findings include the "equal quality" assumption). While Millennials appeared the least likely to pay a premium for an eco-friendly product, this may be partially due to their lack of expendable income. To the team's surprise, more relevant differences arose between genders than between generations. Firstly, females were more amenable to purchasing eco-friendly products than males. Secondly, younger Millennials were more willing to pay a price premium than older Millennials. Finally, older generations were generally more likely to pay a price premium. Overall, survey participants favored eco-friendly companies for all of their purchases, suggesting that brand loyalty may play a role for Goodyear in the future.

With this in mind, the team recommends that Goodyear brand itself as an eco-friendly company above all else. Both the secondary and primary research indicates that the actions of

the company as a whole matter more to most consumers than the eco-friendliness of a particular product. To many, a company's overall eco-friendly efforts may imply that the products produced are more eco-friendly than those made by non-green competitors. If Goodyear wishes to distinguish itself, the team recommends that it should avoid terminology such as "soybean oil" and "green" in marketing messages, which cause confusion and skepticism in consumers. Instead, Goodyear should stress the fact that it is using renewable resources in the production process. Furthermore, if Goodyear wants to charge a premium for an eco-friendly tire, it should target older markets with more disposable income and emphasize the tire's improved performance, citing real life NASCAR examples. Finally, the team recommends that Goodyear examine the potential marketing opportunities that could come from marketing their eco-friendly efforts to women, as women appear to be more sympathetic to eco-friendly causes than men. By implementing these recommendations, Goodyear can establish itself as a leader in the eco-friendly tire industry.

Resources

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