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# Honors Project- Goodyear

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5/11/2016

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#### Introduction

Goodyear offers many different tires to appeal to different sections of the market. They primarily offer 4 types of tires: all terrain, run-on-flat, sports performance, and fuel efficient. All terrain tires provide tough traction for both on and off-road driving. Run-on-flat tires are designed for safety when driving on a deflating or deflated tire. Sports performance tires offer handling, maneuverability, and enhanced wet and dry traction. Fuel efficient tires are designed with low rolling resistance which helps save fuel on long drives (The Goodyear Tire & Rubber Company, 2016).

Goodyear competes in the original equipment tire market and the replacement tire market. The original equipment tire market consists of customers that manufacture automobiles or trucks. This market represents 25% - 30% of the tire unit production volume each year. Goodyear claims the majority of this market share at about 38%. The replacement tire market accounts for the majority of tires sold. Goodyear holds the majority of the market share particularly concerning passenger cars, light trucks, and highway truck product categories.

Within the replacement tire market consumers are given multiple different options. The internet has become the consumer's best tool. While there are still customers who research tires in the store, the majority of customers looking for replacement tires are researching their options online first. In addition, 27% of buyers do not do any research. Instead, they decide to replace their tires with those previously on their car (Tire Market Profile, 2013). In this instance, customers are more focused on the known quality of the tires, rather than the price of the tires. This is true with most customers, even if they are not repurchasing the same tires their car

originally had. When it comes to tires, quality trumps price regarding customer's purchasing decisions (D'Souza, Taghian, & Khosla, 2007).

Goodyear provided three primary objectives on which to focus our research. The first object was to "determine if an analysis of the market could reveal valuable insights." The second was to "determine if green technologies influence consumer's intent to purchase. Including whether or not views differ by generation." Finally, the third was to "determine if commercializing green technologies would change the perception of the Goodyear brand among Millennials." We hope to answer all three of these questions at the culmination of our secondary and primary research.

Per our secondary research, we arrived at several conclusions regarding Goodyear's decision to market soybean tires. One of the major conclusions that will be discussed in this paper is that the target market for green products is not millennials. The older generations are more likely to purchase Goodyear's soybean tires (Fisher, Bashyal, & Bachman, 2012). This is due to two major factors. The first is that consumers believe that eco-friendly products are higher priced. This is not necessarily true, but the perception of the consumer is a volatile factor in this case (Scott and Vigar- Ellis, 2014). Another reason millennials are less likely to buy green products is because they tend to wait longer to purchase new cars as compared to their parents and older generations. Millennials today face a lot of debt due to college tuition and living arrangements. They tend to wait until their debt has diminished before purchasing a new car and thus tires (Boone and Wang, 2014).

Based upon those conclusions, we built a primary research plan consisting of retail observations, a survey, and a focus group. We chose these three factors to get a collective sense

of consumers' purchase decision when it comes to tires. First, we conducted a retail observation the week of February 8th. We also created a survey which was distributed through social media, and was open for 6 weeks. We focused our efforts on millennials in Northeast Ohio. Finally, we conducted a focus group on March 12th and had a valuable discussion with multiple participants about consumers perception of Goodyear and green tires. These three research platforms provided valuable insights and diverse and statistically relevant information on which to base conclusions regarding consumers' perception of soybean tires.

#### **Retail Observations**

As part of our primary research, our group decided to do some retail observations at Goodyear Auto Service Centers in Akron. The purpose of this was to see the tire purchasing process and get an idea of what customers are looking for in a tire. Our observation sheet (Appendix A) included information regarding the time of day we were making the observations, the demographics of the customer, the sales associate's approach towards the customer, the buying decision, and a final analysis of our observation. Based on these questions, we expected to gain insight on how customers purchased tires and what factors they considered while making a tire purchase.

As a result of convenience of location to The University of Akron we did all of our observation at the 1800 Buchholzer Blvd, Akron site and Summit Mall sites. Our team split into a group of 3 and a group of 2 to conduct retail observations throughout the week of February 8<sup>th</sup>, 2016. We chose multiple times throughout the day to complete our observations. We based

these times off of when Google determined there were peak times. From going to these service stations we were able to observe tire transactions.

After talking to some of the sales team at the Auto Service Center, it was noted that the majority of the tire sales were made based on recommendations to customers. When vehicles were getting serviced in the shop the Goodyear sales members would often let the customers know that their tires would need to be replaced within a certain amount of time and would give them an option to have them replaced at that moment. In these instances, customers would typically go with the tire recommended by the Goodyear representative as long as it was a reasonable price. When looking at a sample of two individuals that we observed come in to the Auto Service Center to purchase tires, it seemed that price was their main constraint. The first individual was looking for price quotes for Goodyear tires as he clearly was going to multiple locations to see what price differences there were between tires. He did not purchase any tires while we were doing observations. The second individual we observed was in need of tires as his vehicle's tires were completely worn down. Price was also his biggest concern in buying a new set of tires.

Even though this form of primary research involved only a small sample of tire purchases made, we still were able to draw the central conclusion of price being the biggest factor in purchasing tires. In both of the above tire buying observations price was the key factor over how green or environmentally friendly the tire was. This relates to our secondary research, as it was determined that consumers view environmentally friendly products as more expensive. This also has some implications for our findings about green technology regarding both price and recommendations. Based on our observations, consumers would still be willing to purchase

"green" tires as long as the prices were comparable or cheaper than other tires. Also, if "green" tires are recommended by a sales representative it has a much higher likelihood of being selected by the customer.

#### Survey

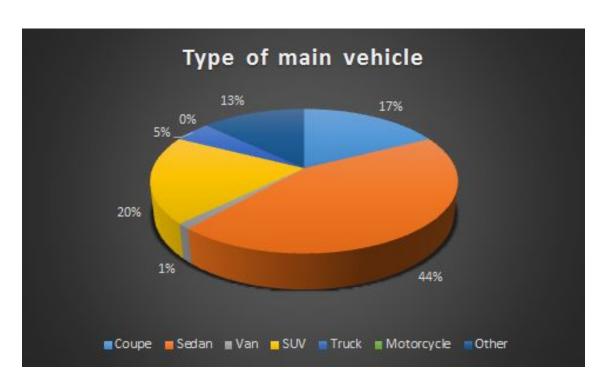
Our group decided to utilize a survey as one of our primary research methods. Surveys are a type of descriptive research design, along with things such as scanner data and analytics ("3 Types of Survey Research", 2014). One of the major benefits of surveys is that they can collect a lot of data with only a minimal amount of work by the creator. Once a survey is created and sent out, many people can take it quickly and easily. Surveys and questionnaires also make it easy to analyze the data in order to see patterns or connections. This is especially helpful when trying to see whether certain demographics, like age or income, have any effect on the responses provided ("3 Types of Survey Research", 2014).

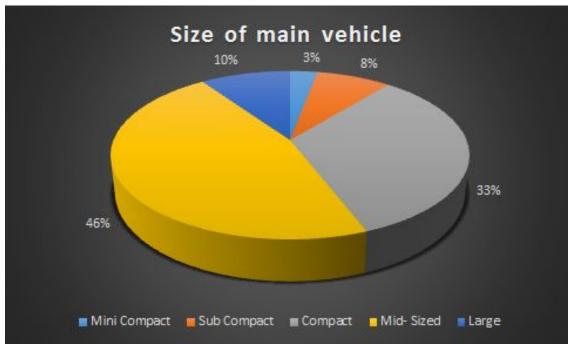
Our survey was sent out on Friday, January 29th in the morning. The survey was open for a month and a half, and closed on March 14th. Some of the ways we distributed our survey were through Facebook, email, friends and relatives, work, and other connections. Although many of our respondents were younger, we were able to get some respondents who were not in the 16-25 age range. We used the free Qualtrics Insight Platform for our survey, because of its logical interface. Qualtrics is a sophisticated research platform that conducts analysis for customer experience, market research, and employee insights with the use of surveys. Additionally, Qualtrics has a familiar format which has assisted in the understanding of the data.

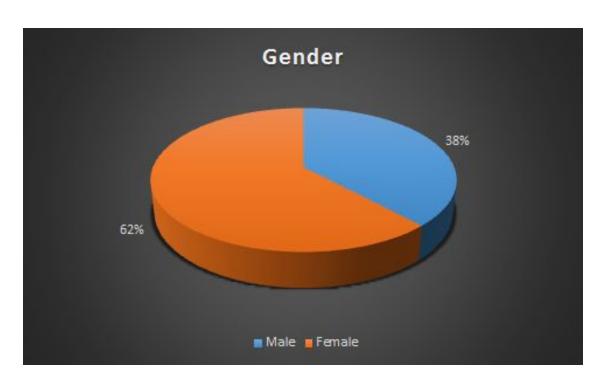
We asked many questions in order to get the best information possible. The questions that were asked revolved around the primary objectives of the project. In addition to this, we had

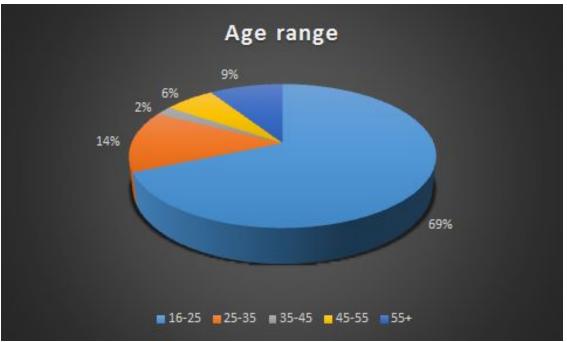
questions that were based off our secondary research findings. The survey started off with an introduction to the survey purpose and guidelines. Introductions help respondents understand the reason for conducting the survey. Following that, we had qualifying questions. These questions were asked to make sure those taking the survey would have experience with using or purchasing tires. These questions related to whether or not respondents had licenses, cars, or if they had ever bought tires. We also had questions involving green practices and tires. Some of these questions included "Do you believe tire manufacturers should be obligated to utilize green technologies to decrease human impact on the environment?" and "How likely are you to purchase tires that were made with green technologies?". In addition, questions were asked about consumers reasons for choosing certain types of tires. This helped us determine if people buy tires based on being environmentally friendly or based on other factors. Following that, we had questions involving tire brands and people's perceptions towards them. Lastly, we had demographic questions about age, income, and employment. These demographic variables will help us determine to whom, if anyone, Goodyear should market these soybean oil tires. Now, we will look at some of the findings that came from the research.

In total, we received exactly 240 responses. Because of our own group demographics, many of the respondents were also millennials. Although our secondary research determined that millennials were not the primary users of green and renewable technologies, it was still good to have data to back up what was already found. Below is the distribution of our survey demographics.

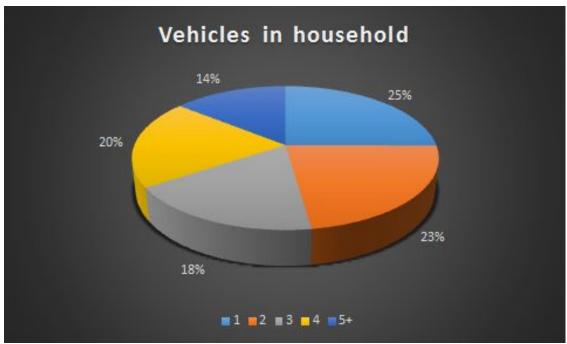




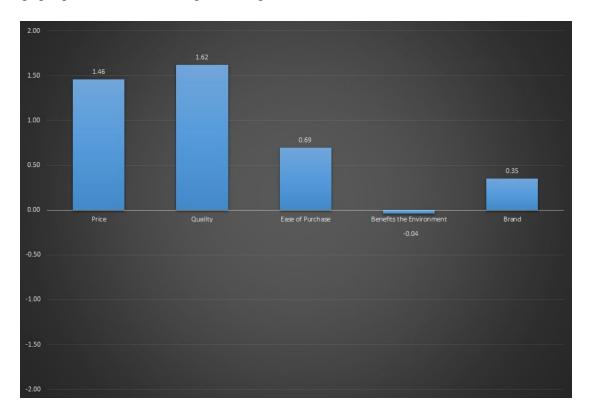








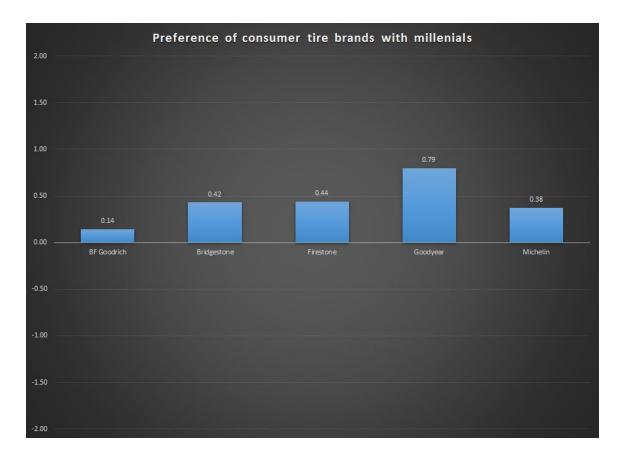
In order to see what respondents are looking for when purchasing tires, we asked "What factors most influence your tire buying decision". There were five options that people could rank on: Quality, price, ease of purchase, brand and benefiting the environment. The results are shown below. Quality was the most important factor, and benefitting the environment was one of the last things people looked for when purchasing tires.



When analyzing the data on questions about how likely consumers are to buy soybean oil tires, results were not promising. With the questions such as "How likely are you to purchase environmentally friendly tires?", "Do you believe eco-friendly tires can help the environment?", and "Would your brand perception increase if a company switched to going green?", the scores were very neutral. Surprisingly, the average score of the question "Do you believe that the government should focus on alternative sources of energy?", was 1.42. This could show that even though people want a clean earth, they are not willing to make the changes to get there.

Earlier in the survey, respondents were able to choose words that they believed described environmentally friendly tires. Over a third of respondents expressed their beliefs that environmentally friendly tires, like those made with soybean oil, are expensive. As just mentioned, respondents marked price as the second most important factor when purchasing tires. This would automatically cause further research, because it seems that people may not want to buy soybean oil tires due to the misconception that they will be very expensive. Another question we asked was whether or not respondents would buy environmentally friendly tires if they were the same price as traditional tires. The average response for this was 1.52. The average answer when not mentioning anything about price was .15. This shows that consumers are most likely only going to buy tires that benefit the environment if they are also high quality and are competitively priced.

If Goodyear starts creating more tires with soybean oil, the brand perception should increase both by older and younger generations. We asked a question comparing Goodyear brands to their competitors, and the data turned out insightful. Out of the five companies (BF Goodrich, Bridgestone, Firestone, Goodyear, Michelin), Goodyear had the highest rating of .8. The Goodyear ranking by only millennials was .79. This is important to know, as it shows that people already have a very high perception of the Goodyear brand.



When asked the question "How would you feel if a company changed to green tire technologies?", millennial responses were .66 on a -2 to 2 scale. Although this may not be particularly high, it does show that the Goodyear brand perception would increase if they became more eco-friendly.

# **Survey Conclusions and Recommendations**

It was noted that the two most important factors people consider when buying tires were quality (1.64) and price (1.46). Because people did express an interest in helping the environment, we can assume that if soybean tires were at a comparable price and quality, they would be purchased. Not only can we assume that from the results already, but we also asked a question about whether people would purchase soybean oil tires if they were the same price as their petroleum oil counterparts. From this, respondents said that they would be very likely to

purchase the tires. Respondents of the survey did seem to care about the environment and being green; however, it seems that they are worried that the tires may not match up in price or quality to traditional tires.

#### **Focus Group**

Another type of primary research we conducted was a focus group. We decided on this method, because we felt that it would be able to give us a more personal insight into the consumer's mind than the survey would. Our focus group was held on Saturday, March 12th, 2016 from 11:00 AM until roughly 1:00 PM in the focus group room in the Polsky Building. To recruit participants for our focus group, we reached out to family and friends who had recently purchased tires in the last year in addition to passing out flyers at the Goodyear Service Centers. As an incentive for consumers to attend the group, we offered a free lunch from either Chipotle or Penn Station, as well as gave out \$5 gift cards. We received eleven responses from those who wished to attend the focus group; however, we only had five members actually show up. Our group consisted of two different generations, Baby Boomers and Millennials, and everyone involved had some type of experience buying tires. Those who attended were exceptionally expressive, and readily contributed their opinions.

The focus group consisted of four different topics with questions centered around being "green", tires, purchasing behavior, and Goodyear. We started the focus group talking about "green" products and technology. Our first question asked what came to the participants minds when hearing those terms. The responses we received were recycling, efficient, and expensive. We asked why the group believed that green products were more expensive and their response was, "because they just are". The group agreed that they believed green products and

technologies were generally more expensive than non-green products. Then we asked if our group felt like they were an environmentally conscious person. Our entire focus group agreed that they would consider themselves environmentally conscious, but not necessarily environmentally active. The baby boomer members in our group mentioned that since they did not grow up recycling they do not think to recycle, unless a recycling bin is right in front of them. The millennials in the group said that since they had grown up with recycling, they do think about it. However, similarly to the Baby Boomers, they would not go out of their way to recycle if it was more convenient to use a trash can. Next, we asked if the group bought green products and if so, what products. We found that no one in our group had purposely gone out and bought a product because it was green. Our group had a general consensus that most of the green products they bought were primarily inexpensive products, like water bottles, because it did not affect the price of the product. We ended our green question segment asking the group if a company with a "green" image made a difference to them. Our group responded pretty similarly saying that a green image did not help a company, but they would avoid a company that was known for harming the environment.

Our next questions segment was about tires. We started by asking the group when, if ever, they had gone out and bought tires. Luckily, everybody in our group had bought some type of tires in the last year. Two participants had bought snow tires, with the rest purchasing everyday tires. The baby boomers had gone to retail stores recently to purchase their tires. Next we wanted to know what brand of tire our group was most familiar with. Surprisingly, Goodyear was not mentioned in the top three tire companies in our focus group. Michelin was the first tire that came to the participants mind and they stated that they thought Michelin was the safest tire

on the road, followed by Bridgestone and Firestone. Our group then pointed out that when they are going to replace their old tire, they are likely to replace it with what tires was previously on their car. The group was not likely to change tire brands from the tire that comes with the vehicle they purchased. Additionally, when looking to replace their tires, the convenience of getting their tires changed was extremely important. Our group wanted to get their tires replaced somewhere by their house or work, so that it would not interrupt their day too much. Lastly, we asked about the most important qualities they looked for in a tire. According to our group, they decided that tread life, safety, and price were the most important factors to look for when buying tires. The baby boomer members of our group said that safety and tread life were more important than price to them, because they were financially stable. However the millennials thought differently, saying price was the most important factor. The millennials in our group wanted an inexpensive tire that would last them a long time, while the baby boomers in the group were focused more on quality.

Next we asked our group a couple questions about their purchasing behavior in general. We started by asking the group if they felt that the media played a part in their buying decision. Our group agreed that they were not affected by the media very much, but that they were aware of the media's presence. When they noticed commercials on TV, even if the commercial did not make them go out and buy that product, they are made aware of that product and are more likely to consider it when looking to purchase in the future. Then we asked the group if brand name made a difference when it came to making a purchase. Our group responded saying it depended on what product they were considering. One member had a great quote, "you get what you pay for." The group member went on to explain that buying a shirt from Walmart and buying a shirt

from American Eagle are two very different qualities.. The Walmart shirt might last a couple wash cycles while the American Eagle shirt might last a couple years. Our group agreed that quality of the product was more important than the brand of the product when it came to products that they wanted to last them a while.

Our final question segment was focused on the Goodyear brand. We started by asking what came to mind when they heard Goodyear. The Goodyear blimp and NASCAR were the only two things that our group brought up. They felt that the only time they noticed Goodyear was when NASCAR racing was on or there was a commercial about NASCAR. Then we asked what the group's overall opinion on Goodyear was. Most of our group felt they did not know enough about Goodyear to provide an opinion. For the most part, our group felt that Goodyear tires were only used for NASCAR. Our group even said, "I think Goodyear has too narrow of a niche, the only time I see Goodyear is with NASCAR and I don't watch NASCAR." Another group member had mentioned that he grew up in Northeast Ohio, and is used to seeing Goodyear in the community. While he was not familiar with the product, he knew of the company for this reason.

From our focus group we were able to establish some overall insight into the consumer's thoughts. The first was that for the most part consumers are likely to help the environment when it is convenient for them, but are unlikely to go out of their way to act environmentally friendly. The second is that millennials and baby boomers agree that quality and price are the most important factors when looking to buy a tire. The generations differ on which is most important, but it was agreed that those were the two qualities to look for in a tire. The final insight was that

brand is not really important when it comes to tires, because a lesser known brand will win customers if it has a better quality.

## Comparison

There were a few key elements that were taken from the secondary research conducted this semester in preparation for the primary research. The first of these elements was that millennials are not currently at the stage in their lives where they are ready to make big purchases. The average millennial is waiting longer than the previous generations to make purchases like cars and homes. This is mainly because of the debt that the average millennial experiences. We were able to conclude that the target market should therefore be generations older than the millennials. This was reinforced in our primary research focus group when only one of our participating millennials had ever purchased tires. Eventually this demographic will be an ideal market to focus on, but right now efforts to get this generation interested in these products will be wasted. Additionally, the secondary research emphasised that while there is no evidence that environmentally friendly products are expensive, the consumers commonly believe this to be true. This was also found to be true in the primary research survey results. Based on survey results, we observed that participants stated that on a scale from -2, to 2 they were only on average .15 likely to purchase a product that was eco-friendly. When asked if they would purchase eco-friendly products if there were competitively priced with non eco-friendly products this average rose to 1.52. These statistics show that initially participants did not think that an environmentally friendly product would be competitively priced. Overall, the conclusions that were made after conducting the secondary research were validated through the primary research.

# **Project Plan Changes**

It is typically expected that something will not go according to plan when dealing with a large project. This was the case with a few aspects of our primary research. We first changed our project plan after the lack of participation in our Twitter polls. The next change came as a surprise, as a number of people who told us they would like to be at our focus group did not actually show up. The final constraint applied to our observations, because the amount of customers actually buying tires at the service stations was limited. Though our primary research experienced these setbacks, there was still substantial information that we were able to gain from these experiences.

As previously mentioned, the original plan for our primary research included additional surveys over Twitter. Twitter has a feature that makes it possible for anyone with a Twitter account to quickly post a one question survey. These surveys can have up to four different options, and may stay open for up to one week. Our group started our own Twitter account for this project with the handle "@BetterWhenGreen", and titled under our group name S.L.A.C.K.. The main purpose of setting up this new account on Twitter was that we were hoping to reach out to different demographics in new areas. We began following mommy blogs, fans of sports teams in the US and abroad, and those with their profession listed in their biography. In targeting these accounts we hoped to get a diverse group for unbiased survey results.

There were a total of three survey questions that were introduced through Twitter. The first question that was asked was, "When is the last time you chose a green product over a non green product?" The respondents had the choices of never, longer than one month, this month,

and this week. The same day we put out another question which asked, "How do you feel about the quality of green products compared to non green products." There were three possible answers to this question: same quality, better quality, or worse quality. There were a total of seven responses to each of these questions. The next question that was asked was, "What do you look for most in a product?" The possible answers were price, quality, or environmentally friendly. There were only six respondents to this question. Each of these questions were open for the full week that Twitter allows.

Obviously, these were not the results we were hoping to obtain. However, this experience allowed us to think critically about what precisely went wrong. The primary reason this survey method was unsuccessful was because we created a new account. We had to follow new people, and the majority of those people did not choose to follow us back. Only about 25% of accounts that we chose to follow actually followed the "@BetterWhenGreen" account back. This means that 75% of our targeted accounts could not see our Twitter survey on their timeline. These surveys would have seen more success if instead of creating a new account, we had used an existing personal account. If this method had been chosen we may not have had the diversity we had originally hoped for, but we would have at least gotten more than seven participants.

In addition to the Twitter polls, we also experienced complications regarding our focus group. The details of our focus group were made public through the use of fliers, social media, and word of mouth. On each flier and social media post we included an e-mail address, and requested that they reserve a spot in our focus group. Those who heard of our survey through word of mouth could RSVP by contacting any of our group members. We had hoped that about fifteen people would decide to attend our focus group. In order to achieve this number we

offered incentives such as the chance to win \$5 gift cards, and a complimentary lunch from either Chipotle or Penn Station. We were pleased when we had a list of eleven participants by the time our focus group was to be conducted. It was a bit discouraging when we realized that morning that we would not see half of the amount of people who signed up. A few had called that morning and told us that they needed to cancel, others simply did not come. When we started the focus group we had five participants.

Though this was not the number of focus group members we had expected, it was still a worthwhile experience. Though there were only five participants, each one seemed genuinely interested in the conversation. They were forthcoming with their opinion of our topics, and even asked questions of their own. The conversation was additionally insightful because of the diverse group of people that were actually in attendance. Two of our focus group members were part of Baby Boomer, allowing us to experience views from more than the millennial generation.

Additionally, the majority of people in the focus group, including those who were millennials, had actually purchased tires recently. It is for these reasons that our focus group was still successful, despite our missing focus group members.

The final constraint surrounded our observations of the Goodyear service stations. We had expected to be able to observe their employees sell the Goodyear tire, and determine aspects of the consumer from this process. We had hoped that by making our observations at peak times we would see a good number of sales, or potential sale transactions. However, most of the time we were at the Auto Service Center there was a lack of tire customers. The majority of the customers that came in were having their vehicles serviced and had no need or interest in buying new tires. As tires are made to last 50,000-60,000 miles people are not always looking to buy

new tires, unless it is necessary to replace their old ones. The lack of customers shopping for tires can be attributed this to the timing of the observations and that most customers use online sites to compare prices and do their shopping. If our group had unlimited resources like time, and the ability to travel quickly between multiple different service locations, then these observations would have been even more successful. However, what we were able to observe is still useful to our project, and the additional commentary from the service center workers was an added bonus.

#### **Overall Conclusions**

In order to determine whether or not this project actually added value to the Goodyear Tire Company it is necessary to go back and answer their original questions. Our group made these questions our main objectives for our entire project. The first of these objectives asked us to determine if a market analysis could reveal any valuable insights about soybean tires. As previously stated our group ran a survey and a focus group that gave us some really great insights about the tire and eco-friendly market. Through this survey we found that the most important aspects of a tire to the consumer are first quality, and then price. The soybean oil increases the quality of the tire, so the market should respond favorably to this change.

The next objective was to determine if green technologies influence the consumer's intent to purchase, and whether or not views of this technology differ by generation. Our survey showed that when a company makes efforts to become for environmentally friendly they are perceived to be marginally favorable by consumers. This means that if Goodyear were to convey to consumers their efforts to protect the environment it will only help attract customers. This was true with the millennial generation, as well as older generations. Based on the focus group

conversation, as long as the quality and price of the products are not changed then customers will look favorably on the company, regardless of their generation.

The final objective was to find how the commercialization of green technologies would change the perception of the Goodyear brand, specifically among millennials. One of our survey questions asked the participants to rank tire companies in order. The companies consisted of Goodyear and their rivals such as BF Goodrich, Bridgestone, Firestone, and Michelin. Goodyear received the highest ranking overall. Our survey demographic consisted mainly of millennials, so we can determine that the perception of Goodyear among millennials is already higher than all competitors. Our primary research as a whole shows that implementing green technology will in no way hurt a company, unless the technology negatively impacts the quality and price of the products. If these aspects remain the same then the consumers will view Goodyear slightly more positively. If these aspects were to increase the quality and keep the price competitive then this would be significantly more positive. This way of thinking was consistent with all generations involved in the primary research, and not just the millennials.

#### Recommendations

There were three main factors that can be taken away from the primary research. The first point made is that the most important aspects of a tire are quality and then price. Then next point is that there are no generational differences when it comes to those aspects. Millennials as well as older generations feel that when it comes to tires, quality and price are the two most important things to consider. Finally, the last point to be made is that there is still a perception of high cost green technologies. If our group had unlimited time and resources it would be interesting to

obtain similar data from other parts of the world. The majority of our data came from Northeast Ohio, so it would be interesting to see if there are differences in places like California where there is a larger emphasis placed on saving the environment.

Based on the data gathered from both the primary and secondary research our recommendations to Goodyear include producing their consumer tires with soybean oils. The marketing strategy should focus primarily on the increase in quality this will give their tires, as this is most important to the consumer. Additionally, there should be a focus to make these soybean oil tires as competitively priced as possible. While quality is the most important aspect, price is a close second. The secondary focus of the marketing strategy should be the environmental benefits. This will give the general public a more positive view of Goodyear, while also attracting customers that fit into the specific environmentally friendly niche.

As the soybean oil tires are already being used for Goodyear's Nascar tires, it is reasonable to believe that their employees are already getting used to working with these tires. The main difference that was found between the tires, based off of the conversations our group had while touring the Goodyear facility, was that the soybean oil made the tires less malleable. This was not a serious difference, it was just something the employees on the production line for Nascar tires had to get used to. There will still be a learning process the consumer tire workers will have to go through, but there are other people in the company now that can give them their knowledge of working with the new soybean oils. It would be beneficial to allow those currently working with the soybean oil tires, to help train those who will be working on them in the future.

If our group had unlimited time and resources it would be interesting to obtain similar data from other parts of the world. The majority of our data came from Northeast Ohio, so it would be interesting to see if there are differences in places like California where there is a larger emphasis placed on saving the environment. This additional information would give Goodyear an even greater understanding of the potential of the soybean oil tire. If this type of research is possible it should be conducted as soon as possible, because some of Goodyear's competitors, like Michelin, are already conveying that they are going green to consumers. However, this research could be conducted after the implementation of the soybean oil. The benefits to Goodyear's efficiency and quality of the tires will be enough to convince many markets to purchase these tires. The additional research would help with specific niches in the eco-friendly market, and how Goodyear can be attractive in those markets through their marketing strategy.

# Appendix A

# **Observation Sheet**

Location	on: Goody	year store:				<del></del>	
Time:			-				
Demo	graphics: (Circ	cle one)					
	Gender:	Male	Female				
	Age:	Under 30	30-50	50+			
	Race:		Black/African American cific Islander Other				
Staff A	Approach:						
	How long unt	il customer ap	proached staf	ff:			
	Did they ask f	Yes		No			
	Did a staff me	ember approac	h them instea	ad:	Yes	No	
Buying	g Decision:						
	Type of tires i	required/ soug	ht after:				
	Brand:						
	Cost:						
Other	observations:						
Analys	sis:						

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#### Secondary Research Report

#### Introduction

The purpose of this paper is brought upon by The Goodyear Tire and Rubber Company. Goodyear is looking into the viability of marketing their newest product, soybean-infused tires. The company is currently producing soybean oil tires, but they are concerned with choosing which demographics to focus their marketing strategy on. Looking forward, this report will cover the following: The Ten Types of Innovation, an analysis and history of green technology in general, and the focus on environmentally friendly tires. We will generate a plan for primary research based on the facts and studies that have been conducted on these topics. These combined resources will help us make generalizations of eco-friendly products and push us forward into making appropriate and educated suggestions for Goodyear.

## The Ten Types of Innovation

The Ten Types framework is a tool used to diagnose or analyze the types of innovation a company utilizes. It is structured into three major categories: configuration, offering, and experience. The Goodyear Tire and Rubber Company is using this framework to their advantage by using at least one of the ten types of innovation in each category. First and foremost, Goodyear uses a profit model. The profit model innovation means that the company offers their products at a high price usually in exchange for higher quality. Although Goodyear tires are not the cheapest on the market, they are a higher quality. Another configuration model they use is process efficiency. Process efficiency aims to create more finished product by using lesser materials. Goodyear plans to introduce tires made from soybean oil, allowing them to create more environmentally friendly tires with less oils and more efficient mixing and processing

times. Goodyear also innovates with the offering category. Product performance is a huge identifying factor with Goodyear. It is an innovation that address the value, features, and quality of a company's offerings. They primarily focus on conservation, environmental sensitivity, and superior production. Conservation is the act of designing a product so that end users can reduce their use of energy or materials. Environmental sensitivity is the way the company creates offerings that do not harm, or relatively less harm - to the environment. Superior production is the act of developing an offering of exceptional design, quality, and/or experience. Even the concept of these soybean-infused tires are proof of these three offerings. The last category that Goodyear innovates in is experience. Channel is a very important aspect because it encompasses the ways that the company connects with their customers and delivers their products. Goodyear has flagship stores which are retail outlets focused on the company brand and product attributes. It is also possible to buy tires via e-commerce which is a strong channel for bringing the product to the customer. Another important aspect of Goodyear's innovation is their strong brand. It is one of the most recognizable companies for tire sales. In addition, Goodyear has developed itself in a way that customers want tires with their quality characteristics. The last innovation that Goodyear expands upon is their customer engagement. The company has always offered premium tires that allows customers to develop and nurture aspects of their identity. For example, NASCAR has used Goodyear tires since 1997 for their quality and durability. Customers who enjoy NASCAR outings may purchase Goodyear tires to conform with their identity (Keeley, L., Pikkel, R., Quinn, B., & Walters, H., 2013). Overall, Goodyear has a strong dependency on the ten types of innovation and has structured their company on this model.

### **History of Green and Renewable Technologies**

It is important to understand what others have already discovered about the eco-friendly market. By researching this, we will be able to give our own market research a clearer direction. There are numerous articles, journals, and other publications that provide information about green products and renewable technologies. This information helped differentiate between the products that claimed to be environmentally friendly in order to seem trendy and which ones positively impacted the environment. While it does not directly relate to Goodyear's ideas about soybean tires, this secondary research over the history and trends of green technology will help our team make more informed suggestions regarding the introduction of this product.

The recent emphasis on green technology may lead one to believe that eco-friendly products are something new and trendy. In reality, green technology has competed with other more mainstream methods for decades. Many would be surprised that "electric cabs dominated Manhattan's streets in the 1890s; that Boise, Idaho, had a geothermal heating system in 1910; or that the first megawatt turbine in the world was built in 1941 by the son of publishing magnate G. P. Putnam--a feat that would not be duplicated for another forty years." (Madrigal, 2011). The automotive industry is a good example of how green technology has competed with more mainstream technology. Manufacturers in the auto industry today are trying to create new, more environmentally friendly, cars by shifting their focus from gasoline power to battery power. Many would think Toyota was ahead of the curve, with the launch of their hybrid Prius in 1997. However, the first all electric, battery operated car was built in 1984 by Henry Morris and Pedro Salom, which they called the Electrobat. The creation of the Electrobat lead to the beginning of

the Electric Vehicle Company, also known as the first taxi service company in New York City (Madrigal, 2011). Electric, steam, and gas powered carriages were all competing in the late 1890's to become the vehicle of the future.

Obviously, the gasoline powered car took over the market, but what happened? The electric cars of the 1890's faced the same issues as the electric cars of today. They could not engineer a way for the battery cars to have the same capabilities as their gasoline counterparts. However, William C. Whitney had found a way to deal with the range limitations the Electric Vehicle Company was facing. "Instead of stopping every few hours to charge an electric car's massive lead-acid batteries, cars would swap out empty batteries for charged ones...At the end of every shift, the taxi driver would return to the central battery storage facility on Broadway and switch his spent battery for a rested, recharged one"(Orlove, 2012). Unfortunately, Whitney's business strategy also included rapid expansion through acquiring about 1,600 more electric vehicles. This increased the amount of batteries that needed to be stored, as well as increased the labor costs from the mechanics who changed out the batteries. These costs eventually led Whitney to sell the Electric Vehicle Company to Columbia Motor Carriage Company, which replaced all the outdated electric vehicles with gasoline vehicles. The failure of the Electric Vehicle Company halted any innovation for electric cars throughout most of the 20th century.

### **How Companies Become More Eco-friendly**

There are many different ways that companies can become more energy efficient and eco-friendly. The automotive industry is attempting to reduce its carbon footprint by changing the way its products function. However, companies can chose a variety of different methods to become more "green". The U.S Bureau of Labor Statistics did a study in 2011 and used six

the use of renewable energy sources like wind or solar power. Companies could also create more energy efficient practices with a more eco-friendly design. Another practice used by companies is reducing greenhouse gas emissions indirectly. This method could be as simple as having employees carpool to work together. Companies could also implement practices that reduce the amount of pollution they create. An interesting example of this method is when UPS decided to reroute their trucks so that they only made right turns, which made routes quicker and saved the company money on labor and fuel costs. This strategy also significantly lessened UPS's CO2 emissions by 20,000 metric tons (Shontell, 2011). Similarly, companies could decide to reduce the amount of waste through practices like recycling. Finally, a company may decide on practices that reduce the amount of resources used in order to conserve natural resources. The U.S Bureau of Labor Statistics found that the two most popular methods were improving energy efficiency within the company, and reducing the amount of waste produced by the company (Watson, 2013).

Now, more than ever, the "green" trend is putting pressure on companies to produce more eco-friendly products. Some of the most popular of these are solar roadways, shoes that generate power from walking, wind generators, rainwater collection systems, and smart cars. With the high failure rate of previous green technologies it is hard to know if the hassle is worth it for these new products. Additionally, how will one know if the new emphasis on energy efficiency will make any difference? "With supportive policies, pricing, regulations, standards, and enabling technologies that inform, motivate, and engage customer participation and influence consumer behavior, there *is* considerable scope for optimism" (Sioshansi, 2013). In order for

any policy, or regulation, to be able to increase energy efficiency, they must be supported by everyone from upper management to the customer.

# **Green Practices Based on Age**

It has been found in different studies that we will now look at that middle aged consumers are more likely to engage in environmentally friendly behaviors. This conclusion was drawn from the observation that out of eight research studies, only one study found that younger people were more likely to exhibit environmentally friendly behaviors. Four found that older people were more likely to do so, and three studies did not find any significant difference. Based on these studies it is clear that more researchers have found that it is more likely for older people to show environmentally friendly tendencies (Fisher, Bashyal, & Bachman, 2012). This suggests that we should focus our primary research on people older than millennials. Another nationwide survey from the United States using a cluster sample showed that age had an impact on ecologically conscious consumer behavior. This survey also showed older consumers were more likely to exhibit such behavior. However, all demographics combined in this survey explained only 6 percent of the variation in the sample. The addition of attitudinal variables increased the percentage of variance to 45 percent (Fisher, Bashyal, & Bachman, 2012). This specific survey showed that older people exhibit more green behavior. However, the six research studies that were observed showed that demographics play a small role in the overall results.

Another survey by ICOM inc. found that consumers over 55 years of age were the most prolific users of green products in the United States. Leading the way was the 55–59 year-old female demographic, which was more than twice as likely as the average consumer to use green products. Males from 65 to 69 years old were more than 1.7 times as likely to use green products

as the average American (The Greenest Generation, 2008). Furthermore, another study found similar conclusions to what has been previously stated. This study investigated the consumers' green purchase behaviour using price and quality attributes as contributors to the formation of purchase intention. It attempts to construct a model that may facilitate the better understanding of green consumers' market segments through the use of an intelligent soft computing model (D'Souza, Taghian, & Khosla, 2007). This potentially provides a more direct method for companies to gauge the consumers' intention to purchase green products. Consumers who fell into the quadrant I were respondents who formed clusters that would prefer to purchase environmentally safe product if it was somewhat more expensive and were of somewhat higher quality. The majority of these consumers belonged to an older age group, had no children, and were retired. Quadrant II included consumers who formed clusters that would prefer to purchase environmentally safe products if they had somewhat higher prices and were somewhat of lower quality in comparison to the alternative products. Very similar to the last quadrant, these consumers and older and also retired. Results from quadrant III (would purchase of lower quality if a lower price) and quadrant IV (would purchase of higher quality if a lower price) did not show a significant difference of opinions between different age groups (D'Souza, Taghian, & Khosla, 2007). This shows yet again that people of an older demographic are more likely to spend the money to obtain a product that is environmentally friendly.

Millennials have been viewed as the most environmentally conscious generation and a generation that strongly believe that alternative sustainable energy is extremely important to our future. According to David Weinberger of the Roosevelt Institute Campus Network (RICN), "Millennials view environmental protection more as a value to be incorporated into all policy

making than as its own, isolated discipline" (Winograd and Hais, 2013). Millennials are concerned with a variety of issues such as: the economy, public health, education, and national security. They believe that each of these issues directly relate to the environment (Winograd and Hais, 2013). That statement has more of a political view, but it sums up that Millennials feel the environment and protecting it is something that affects everyday life. David Weinberger's study shows that 71% of Millennials feel the government should focus on alternative sources of energy like wind or solar energy. Additionally, 25% of millennials feel that, as an economy, we should focus on the expansion of natural gas and oil. Furthermore, it points out that 66% of Millennials believe that global warming is real and of that 66% about 41% say global warming is man-made (Winograd and Hais, 2013).

While the millennial generation has strong opinions about the environment, a majority of the them believe that they do not have the funds available to make green purchases to back up their beliefs (Boone and Wang, 2014). Millennials are usually in college or just starting their careers so they generally have limited financial abilities. In 2014, student loan debt reached over \$1.2 trillion. This amount has now surpassed the amount of credit card debt held by Americans. One of the reasons for the large amount of student debt is the increase in costs of tuition. From the year 2002 to 2012 public college education costs increased by 40%. Individually, the average debt that a graduating student with a bachelor's degree will have is \$30,000. This amounts to loan payments of about \$300 a month, and these additional costs minimize the disposable income of millennials (Boone and Wang, 2014)

The Eco Pulse study released by GreenBiz highlighted some interesting things about Millennials and their green habits. "Across the board, Millennials are more likely to be talking

about energy and water conservation, preservatives and chemicals in food, global warming and VOCs, but those conversations aren't producing change -- yet. Millennials are 23 percent less likely to have changed behaviors or made green purchases than the overall population" (Barnes, 2010). Millennials are more likely to walk, ride a bike, or use public transportation to get around rather than own their own vehicle. This would mean that those Millennials without a vehicle aren't thinking about tires. One article discussed how the number of Americans aged 16-24 with their drivers licence is only around 67% (Ball, 2014). Millennials who do own vehicles generally are purchasing cars later in life. This is mainly because of their debt situation discussed earlier. On a more positive note, millennials are generally very brand loyal. Companies are achieving brand loyalty with millennials through interacting with them on social media, and giving back to society. If a company interacts with millennial customers on social media those millennials are 62% likely to be loyal to that company. Additionally 75% of millennials state that it is very important for companies to give back to society, and will choose these companies over their competitors (Schwabel, 2015).

Goodyear has done a great job in making their tires more convenient to consumers by selling tires directly to them via Goodyear.com. "The website incorporates the key findings from the national study in a way customers of every generation value: convenience, transparency, and one of America's best-known brands, with more than 4,000 installation locations nationwide. Whether you're a Millennial buying tires for the first time, a Gen Xer who values efficiency, or a Baby Boomer who has bought enough tires to train a Millennial on how to buy them, Goodyear.com has a tire for you—ready to be installed at a location in your area." (CGK, Team, 2015) The process is extremely quick and easy to do with simple steps every part of the way

producing tire results that show up within seconds. With Millennials being so focused on convenience, Goodyear has positioned themselves well by making tire buying extremely convenient (Grosso, 2015). However, from all of the data and research looked at, this currently suggests that Goodyear should market these renewable soybean oil tires to older demographics. Although it seems that millennials are concerned about the environment, they care less about making the changes to combat it.

# **Benefits and Drawbacks of Green Technology**

There can be many benefits to consumers using green technology. The first benefit of using green technology is that consumers feel environmentally conscious, and that they are making a better impact on the world. In a recent study, "more than two-fifths of respondents said claims of "green" or "environmentally friendly" made them think the item actually had a positive effect on the environment. Another 25% said they thought the item had less of an impact on the environment than similar products" ("Marketers walk..."). As one can see, even respondents who did not necessarily think of these products as beneficial, still thought they were making less of an impact than if they had not used the green products. When respondents in another study were asked how they felt about using green brands, the results were overwhelmingly positive. Many responded with things such as "when buying a green product, you feel like you are giving back", "It makes me feel good too", and that it makes the consumer more happy (Parker, Segev, Pinto). Although it is a somewhat controversial issue, another benefit of green and environmentally friendly products is that they are able to help combat global warming. It seems that consumer's perceptions of the Goodyear brand would increase if they began to commercialize green technologies. Another benefit comes in the form of tax credits for the

company. In 2009, the government started providing incentives for companies to go green in the form of tax credits. These are given to companies that utilize environmentally friendly business practices, such as switching to renewable energy sources like solar power, and using electric or hybrid automobiles and trucks (Joseph, 2010). Although the benefits are great, some consumers don't find that they are able to outweigh the costs.

Unfortunately, sometimes buying green comes with a cost to the consumer. The first of these costs are the perceived prices. In one study, many respondents stated that "you have to be rich to be green" (Parker, Segev, Pinto). This would clearly make green products less attractive to certain markets as discussed in our previous section "Green Practices Based on Age", like millennials who are spending money on education and advancing their careers. It is usually the older consumers with deeper pockets that are able to afford more expensive products. Even setting age aside, it seems that many consumers have preconceived notions that it is very difficult to be environmentally friendly without having a disposable income. Another issue is one that was previously mentioned at the start of this paper; confusion about what going green means can hinder an individual from purchasing green products. When customers do not understand what it means to be green, or environmentally conscious, they will be less likely to engage in such behaviors. Additionally, eco-friendly packaging may cause problems for companies trying to make a profit off of environmentally friendly products. The United States government does not have an approved "eco friendly" label, just standards and guidelines for the products (Scott and Vigar- Ellis, 2014). It is likely that if the United States government came up with such packaging, the sales of green products would increase. Although it may not be a cost to the customer, it can greatly impact the amount of green products purchased.

# **Geographic Markets**

There are a few different geographic markets to consider when determining where a soybean tire could be successful. The first market to research is the domestic market of the United States of America. Researchers have determined that American's environmental concerns are local, and not global. Americans are more concerned with toxic waste and pollution that directly affects their surroundings. They were also able to determine that in general Americans believe that wind and solar power are the best options for the future. Konisky and Ansolabehere found that the, "beliefs about the costs and environmental harms associated with particular fuels drive public opinions about energy" (Ansolabehere and Konisky, 2014). The general American opinion is that wind and solar power have a relatively low cost and do the smallest amount of harm to the environment.

While it is true that wind and solar power are better energy methods for the environment, it is not true that wind and solar power have a low financial cost (Johnson, 2014). Fortunately, Bloomberg's New Energy Finance research unit has found that in 2015 clean energy costs were able to become more competitive because of lower financing and technology costs (Fehrenbacher, 2015). These changes could suggest a huge transformation to the energy industry and a shift from fossil fuels to wind or solar power.

Switching to cleaner energy would be a big step for the United States as a whole, but there are many smaller things that an individual can do to help their community become more green. Fossil fuels have significant carbon emissions in comparison to "greener" energy alternatives such as wind or solar power, showing how much cleaner these energy alternatives are (Anastasiadis, 2011). There are many incentives to using renewable energy such as social,

economic, and even moral incentives (Stowe). The most popular method individuals use is recycling, but are enough Americans doing it? Recycling participation is much higher in affluent neighborhoods, than it is in middle to low income areas (Tierney, 2015). In 2013 the Environmental Protection Agency was able to determine that the United States has about a 34% recycling rate. This means that of the 254 million tons of trash created that year, only 34% of it was recycled (Municipal Solid Waste). This rate has become stagnate and remained at 34% for the past few years. Although recycling does not directly relate to soybean oil tires, it does show how willing or not willing Americans are to engage in environmentally friendly behaviors.

There is a huge problem with recycling in America, and it is not the amount of people recycling. It is the actual cost of recycling waste. The nation's largest recycling company, Waste Management, is losing money fast. In one quarter, at just one of its facilities the company lost \$16 million. Additionally, in 2015 they were forced to close 10% of their total facilities. These losses can be traced to the falling oil prices, the strong US dollar, and the weak Chinese economy (Davis, 2015). Another cause of the heavy losses in the recycling industry are caused by residue at recycling plants. Many municipalities recently increased the bins used to collect recyclables. A recent audit of Waste Management showed that the increased size of the bins reduced Waste Management's profits by 50% because of the amount of residue that began to accumulate (Davis, 2015). If American citizens would like to continue to recycle to benefit their communities, they will need to start recycling smarter. This can be achieved by simply making sure that non-recyclables do not find their way into recycling bins and looking up if certain items are actually recyclable when it is unknown. If recycling becomes a trend of the past, Americans may need to find new ways to help the environment.

In Europe, green products and renewable technologies are very popular. All European Union countries have adopted national renewable energy action plans showing what actions they intend to take to meet their renewables targets. These plans include sectorial targets for electricity, heating and cooling, and transport; planned policy measures; the different mix of renewable technologies they expect to employ; and the planned use of cooperation mechanisms ("Renewable Energy - Energy - European Commission"). Some countries in Europe have found very successful ways to involve their citizens in their environmental goals. In Switzerland citizens are encouraged to recycle because it is free while trash bins cost money. There are separate recycling bins for products like glass, garden trimmings, tin, and batteries. Switzerland has had a recycling rate of over 50% since 2010 (Herczeg, 2013). A similar waste management strategy is followed in Denmark and Germany, where bins specify which type of recyclable goes where. The citizens of these European countries find no difficulty in sorting their trash, unlike the American citizens.

In both India and China, we found a desire for material wealth, control over others, visible success and visible ability to be the values most embraced by the urban population. In other words, both Indian and Chinese urban populations display, following the lines of Maslow's hierarchy of needs, a huge skew toward externally motivated individuals. Three out of four urban Chinese and nearly seven out of 10 urban Indians were externally motivated. Acquiring and displaying symbols of success and enjoying public social esteem are now the driving forces in Indian and Chinese society. Internally motivated individuals, for whom self-improvement or making a difference are driving needs, are much thinner on the ground. In contrast, in the USA we found a similar desire for visible success and ability but also a strong espousal of the values

of openness, justice, novelty, and adventure. That is to say, there is a higher proportion of internally motivated people in the USA (Lloyd, 2013).

#### **Current Trends**

When looking at the future trends for requirements in the consumer product industry, there is a need to meet certain green standards. Assessing the issues that will be faced in the future, we can see the world all together has consumed a significant amount of resources that are available. The global middle class is expected to triple by the year 2030. The natural resources consumed is expected to rise to 170% of the Earth's bio-capacity by 2040 and 60% of the Earth's ecosystem services have been degraded in the past 50 years (Kunz). Even as these trends become apparent, consumerism continues to grow. Green requirements in North America include working on climate change, air quality, safety of chemicals, achieving sustainability, keeping waters clean, and creating environmental laws to protect the environment. In order to keep pace with these global trends of environmentally friendly consumer products, green production in tires will be needed.

Many companies may wonder if a sustained effort to develop and commercialize green technologies in tires would affect the perception of the Goodyear brand among the Millennial Generation. Although there may not be a lot of information out there specifically on tires, there are other examples of green companies that have sustained such technology that can be reviewed. One article discussed how consumers felt when restaurants began to go green. The study looked at 512 American diners who changed their business in one of two ways. Some of the restaurants focused on green and organic food choices, while others started to focus on being environmentally friendly with their practices. The impact of green practices was different when

looking at the type of restaurant. In upscale casual dining restaurants, green practices that focused on foods were more effective in enhancing a green brand image as compared to those with an environmental focus. On the contrary, casual dining customers saw green practices with an environmental focus to be more convincing and enhancing for their brand imagine. In addition, results showed that diners with high health and environmental consciousness responded more positively to restaurant green practices than those with a low self-perception of health and environmental-consciousness (Namkung and Jang, 2013). This study shows how upscale and more wealthy individuals prefer green practices that they can benefit from, like the organic food in the example. On the other hand, diners that usually go to casual restaurant prefer environmentally friendly practices that help others.

### **Competitors and Green Energy**

At first, tire companies were focused on being green by reducing greenhouse gas emissions. About 86% of emissions were due to the extra fuel that tires caused engines to burn in order to overcome the rubber's resistance to rolling, The first innovation was to attempt to create a low-rolling resistance tire. Its purpose was to lessen the frictional heat that rubber creates as it hits and forms to pavement. Anywhere from 15 to 38 liters of petroleum are used to produce a standard tire. To combat this exorbitant amount, low-oil content tires use various natural resources as substitutes such as vegetable-based processing oils and fibers made of plant cellulose. In addition, many companies are focused on the estimated 300 million tires that they must throw away and endeavor to recycle them safely. Since 2010, the attempt to stay green has continued as a strong trend for tire companies (Ashley, 2010).

Michelin currently is the world's largest producer of tires. In conjunction with Bridgestone, Goodyear and Michelin account of 60% of the worldwide tire market. One of Goodyear's competitors, Michelin, has been going green recently. Michelin has already started on production of green tires and actually branded their tires with the Green X symbol if it meets their testing requirements ("Michelin Green X."). Michelin is already focused on keeping their tires and processes clean. Some of their facilities use alternative methods of energy to fuel their operations such as solar power panels and wind power. Their recycled tires are put directly back into the use as soundproof walls, drainage solution, or sports and track fields. Since 2005, Michelin has reduced the emissions impact of our facilities by 33% ("Sustainable development - Green Tires"). Clearly, Michelin is focused on environment management and have been producing green tires that have done well in the market.

To keep up with the clean race by competitors, Goodyear is trying soybean oil as a petroleum replacement for tires. The benefit of changing their processes are a better blend with the silica also used to make tires, reduced energy consumption, a 10% increase in tread life, and a 7 million gallon oil reduction in Goodyear's manufacturing. However, the critics of this process object to using farmland to grow substances for transportation instead of food, as is the critique of corn ethanol based fuel (Goodyear Discovers Soybean Oil Can Reduce Use of Petroleum in Tires, 2012).

#### Conclusion

One of the most interesting findings that will effect our primary research is that the target market for green products is not millenials The older generations are more likely to purchase green technology. We have found that consumers believe eco-friendly products are higher

priced, even though there is not significant research that supports this thought process. This is one of the reasons that millennials are not the ideal market for Goodyear. Another reason is that millennials are waiting longer than their parents did to purchase new cars, because of their debt situation. Once debt is no longer a problem they will be able to spend their money more consistently with their strong environmental opinions. Therefore, while millennials are not currently the best generation to market to, they will be later in life.

Based on the research that has been found thus far, it is now possible to use this secondary data to help develop a primary research plan. The primary research that will be the most useful in this situation will be Goodyear store observations, a survey, and a focus group. For the observation, we will go into Goodyear retail stores to see customer's tire purchasing decisions. The survey, that will be distributed online, will help better understand people's opinions on tire brands, green products, and renewable technologies. After analyzing the data using chi squared tests, we will be able to make generalizations about the data. After these things, we will be holding a focus group of around 10-15 people from around the community. Based on the secondary research it will be ideal for the focus group to be comprised of recent tire customers who are middle aged. We will include some millennials; however, we will try to get the majority of people involved to not be older than millennials.

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