STUDY OF THE PRESENT AND FUTURE VIABILTY OF MARKETING "SUPER FRUIT" PRODUCE/PRODUCTS BASED ON POSITIVE CONSUMER PERCEPTIONS

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CHAPTER 1

INRODUCTION

"Super fruits" and their products have proven to be quite the lucrative business. In recent years, a rather indiscriminate label has been coming up more and more to describe certain types of produce. The term "super fruit" has bombarded news programs and invaded product marketing campaigns, giving rise to new thriving agricultural sector. But what does the phrase actually mean? Essentially, the term "super fruit" has no legal definition. It is marketing jargon for fruits that offer value beyond basic nutrition, with basic being defined as those nutrients that show up on the Nutrition Facts. Regardless of being a relatively new retail sector, it is anticipated to be worth around $10 billion dollar global industry by the end of 2011. Since issues with obesity and overall health in general have become more prevalent and mounting unease among citizens in recent years, marketers have seized the opportunity to really push super fruits on the basis of their superior health factors. Such strategies have super fruit products flying off the shelves and giving rise to thousands of more super fruit products all the time (McNally, 2007). It is true these strategies are clearly effective but as the profit potential grows bigger, so do the super fruit health claims. It is interesting how much clout some of the more outrageous claims seemingly have with consumers when those claims remain relatively insubstantial. This presents a double edged sword for marketers…which claim may reel consumers in and which may turn the consumers off. Regardless, for the moment "super fruit" is racking in the profits but is their longevity in these marketing strategies? By

analyzing current consumer attitudes and perceptions of super fruit, marketers can better asses whether or not super fruit marketing is well worth continued investment.

Problem Statement

Based on current consumer perceptions, is there continual value in super fruit marketing?

Hypothesis

There is continual value in super fruit marketing, if 50% of respondents claim to believe that super fruits have an added value of health benefits that they are willing to pay more for.

Objectives:

1. Assess average consumer fruit purchasing habits
2. Assess how the average consumer considers health factors when purchasing fruit
3. Assess average consumer's perception of "super fruits"
4. Determine whether or not “super fruit” marketing has future profitability based on consumers’ willingness to continue buying and pay more for “super fruit” products perceived added value

Significance of the Study

The significance of this study is to benefit current and future marketers in their endeavors of super fruit marketing strategies. The results of this study will provide valuable insight the current consumer views and trends in regards to the super fruit sector.

CHAPTER 2

LITERATURE REVIEW

Consumer Surveys

The best way to evaluate average consumer perceptions of “super fruits” is by administering a consumer survey. Consumer surveys involve asking questions catered to a specific topic of study, and then are statistically analyzed to examine significant implications of the surveys findings. Surveys can be conducted in-person, through the mail, over the internet or any combination of the previous methods. The internet has good sampling potential when a study wants to focus on a specific topic because researchers can zero in on certain online communities that cater to that subject. Unfortunately, this method also has the potential for skewed and biased results (Alessi, 2010). Unless, the topic of study heavily relies on internet users web surveys alone tend to exclude potentially important segments of the population, particularly those of small towns and rural communities (Smyth, 2010). However the surveys are collected, their responses are totaled and further examined through created frequencies and running statistical tests.

Each question in a survey is given codes. Every response to a question is given a numerical value. Codes vary according to the question. For simple questions such as gender or yes/no questions the code is will either be a 1 or a 0, with a 1 signifying the affirmative, or in the case of gender the more likely answer—the more complex the question is the more possible number responses required in the code (Robinson 2008).

This act of coding allows the qualitative and quantitative survey responses to be translated into such a way that the sums and averages of the responses can be tested mathematically. The most common tests used are chi-squared tests and independent t-tests. Chi-squared tests identify relationships between various categorical variables, such as demographics and shopping characteristics, and the target market, or people likely to be frequent super fruit purchasers. While independent t-tests on the other hand are run to determine any differences in proportions of two different categorical variables within the target market.

These findings will indicate consumer trends and perceptions of the topic being studied. Such information is often invaluable to marketers who want to make sure that their product or service is given the best potential to appeal to the consumer. For example, a survey was conducted in southeast Missouri to evaluate average perception of locally grown food. The survey found that while most consumers considered locally grown food to be of higher quality, only those who grew up on a farm or were part of an environmental group were willing to pay a premium for locally grown products. Based on these findings marketers should stress the quality, freshness and price competitiveness of these products for their sales to be successful in that region of Missouri (Brown, 2003). By applying the same type survey to the question of super fruit perceptions, marketers can use the findings to assess how consumers respond to these products and consequently whether or not these products can maintain a strong market presence.

Super Fruit

As previously mentioned the term "super fruit" has no legal definition. It is marketing jargon for fruits that offer value beyond basic nutrition, with basic being defined as those nutrients that show up on the Nutrition Facts. The most prominent super fruit attribute is a high Oxygen Radical Absorbance Capacity (ORAC). High ORAC values are associated with foods high in antioxidants, which neutralize the chain reactions of free radicals. Free radicals are chemical chain reactions that often weaken a cell's function, if not killing it all together. Therefore anti-oxidants are vital to maintaining the health of most cells in the body (Berry, 2011).

The idea of super fruits began roughly in mid-1990's when the blueberry industry began promoting the antioxidant content and high ORAC value of their commodity. The actual term "super fruit" came around in 2004 when Superfoods Rx author Steven Pratt highlighted the antioxidant levels and anti-aging properties of blueberries in his bestseller (Berry, 2011). While blueberries were to the first of the super fruits, it is often the more exotic fruits that are associated as "super fruit", such as pomegranates, acai berries, goji berries, noni and the relatively recent maqui berries. However, many of the more standard fruits, such as raspberries, strawberries, cranberries, and many others have sufficient anti-oxidant levels to be considered "super fruit" as well; they aren't as readily associated as with the term super fruit because they have been around for years as main staples. These fruits seemingly don't need that push, but it begs the question would labeling such produce as "super fruits" bump their sales just by association?

Consumers Using Labels to Be More Health Conscious

The rise of "super fruit" coincided with the mounting concern for individual healthiness. In recent years, the U.S. has seen a spike in health issues with more and more citizens suffering from ailments such as obesity, diabetes and heart disease. Consequently this has led to a growing interest in healthier lifestyles since about the mid-1990's. Both consumers and policy makers started to take steps to improve the situation. In 1990, the government passed the Nutrition Labeling and Education Act (NLEA) which constituted the most comprehensive changes in food product labeling in more than 60 years. It requires all food manufacturers to present standardized nutrition facts on the package. These facts include nutrient-related information such as highlighting the percentages of fat and cholesterol, serving size and percentage daily value (Mandal, 2010). Changes in package labeling were estimated to cost food marketers more than $2 billion, and long-term estimates of savings due to health and productivity-related benefits associated with the labeling changes ranged up to $100 billion (Garretson, 2000). With more extensive labeling on food products available, the consumers now had the opportunity to take that knowledge to asses their individual diets and utilize it to make better choices when it came to their purchasing habits. Recently, studies have examined the association between use of nutrition labels and demographic, behavioral and psychological factors, household purchasing decisions and food intake patterns (Mandal, 2010). With citizens becoming more proactive in making healthier food choices, consumer demand for better, fresher foods is on the rise. Super fruits take the healthy

factor a step further giving them a competitive edge, and consequently huge market potential.

Recent Success of Super Fruit Marketing

The produce sector saw a rapid increase in sales, as consumers became more interested in not only basic fruits but the more exotic specialty fruits. “Consumption of specialty fruits increased 20% from 1990 to 1999, with their annual growth rate accelerating to 5% in 1998 and 1999, according to the U.S. Department of Agriculture. America's passion for exotic fruit is seen in per capita consumption of papaya, which shot up 56% from 1998 to 1999, and mangoes, which more than tripled from 1990 to 2000-from half a pound to 1.69 pounds” (Hennessy, 2001). Now mangoes and papayas have become more familiar produce, while even newer, more exotic fruits, such as goji berries, acai berries and mangosteens, have been introduced to consumers.

The whole appeal to the “super fruit” movement is the notion that these products have overwhelming, fantastic health benefits, which means huge potential for profits as demand for these “super” products increases. The highly advertised value of these even newer fruits has prominently reinforced the message to marketers that consumers are looking to buy their health (Frewer, 2003). This has prompted companies such as Tropicana and Minute Maid to re-vamp their established products. By utilizing marketing strategies that emphasize their products’ health benefits and identify ailments their products should reduce risk of. For example, Tropicana didn't have to change its Pure Premium formula to boost its latest health initiative. Instead, the orange juice leader took advantage of a new fast-track health claim approval process at the Food & Drug

Administration to hype the benefits of potassium already in orange juice. The newly approved claim allows marketing to maintain that “Diets containing foods that are good sources of potassium and low in sodium may reduce the risk of high blood pressure and stroke" (Thompson, 2000). While some companies are able to overhaul there classic products to fit this healthy trip the country is on, it has also given rise to many new products and companies thanks to the “super fruit” craze. In a seemingly short amount of time, “the word super fruit has blared into the headlines with alluring fanfare. What began as just a few curious exotic juices in the American market has now evolved into thousands of products in a multibillion-dollar global industry” (Berry, 2011). With super fruit marketing becoming so profitable, marketers are quick to jump at this golden opportunity, becoming more aggressive and ruthless in securing a cut of the takings.

Super Fruit Marketing Gone Too Far

The ranges of “super fruit” products have claims that start as simple as “highest anti-oxidant levels” all the way to the questioning “will reduce your chances of certain cancers”. This marketing has been incredibly beneficial to moving these products through to consumers since overall health issues have become more pressing as of late. What is interesting is how much sway these claims have with consumers while they are mostly unsubstantiated. Most studies conducted are considered to be very limited and have great potential for flaws and errors. The misgivings in the overall findings haven’t stopped marketers from taking full advantage of the meager claims in order to boost sales. But the extremes of the claims such as the ones relating to cancer cures have great potential to

spiral concerns towards the insane. For example, Pom Wonderful used to have a number links on their website that pulled up scientific studies emphasizing the benefits of pomegranates. The FDA soon claimed this was advertising the products potential to cure cancer, resulting in Pom Wonderful to be labeled as a drug. However, the FDA turned around to claim “In fact, POM Wonderful is not just a drug, but a misbranded drug. By initially labeling POM Wonderful 100% Pomegranate Juice and POMx products (a line of supplements) as drugs suggested average consumers could diagnose themselves and in turn were “prescribing” themselves cures by purchasing these products. Seeing as only medical practitioners can properly prescribe drugs for proper intended use POM Wonderful was considered a “mislabeled drug” (Moss, 2010). While many experts do agree certain of the fruits have elevated nutrients levels, such as increased anti-oxidant and polyphenols, they also acknowledge that they are not treatments. “So-called 'super' fruits--goji, noni, mangosteen and acai--are rich sources of antioxidants, but some of the marketing hype exaggerates the benefits of their juices. There's no good evidence that drinking them will cure diseases such as cancer or diabetes (Choice, 2007).” Also, the nutrient factors are often diluted through processing into products such as juices and granola bars, putting the seemingly superior product on the same level nutritionally as a basic whole piece of fruit.

On the whole, the uncertainty and vagueness of the findings so far appear to not have affected the consumer affinity for wanting the fast, easy and superior health foods. But it’s a wonder how long this “super fruit” fad can be milked. With consumers becoming more active in educating themselves in health concerns there is potential for their perceptions of what “super fruit” is actually worth to change. Consumers could feel

that they aren’t exactly getting what they think they’re paying for. Also in light of the economic times consumers are watching their wallets more anyway. A little enlightenment may completely alter their purchasing habits and drastically slow the whole “super fruit” marketing direction.

CHAPTER 3

METHODOLOGY

Procedures for Data Collection

There are hundreds of places across the United States where “super fruit” produce and products are sold, the focus of the data collection came from a standard grocery store. At least one hundred surveys were administered, in order to attain as unbiased sample population as possible in order to lessen sampling error. The data was collected in front of the Albertson’s in Irvine, California. This particular store was chosen with the intent of getting a demographic variety since it sits right at a diverging point of many cultural and socio-economic demographics, such as the University of California, Irvine and the range of modest to high end housing. In order to get the best results possible for this purpose, the survey will include a diversity of questions about consumer demographics, healthy habits, and overall perception of “super fruits”. The results of this survey will provide insight to consumers’ reasons for purchasing super fruits and their attitudes towards super fruit products in general.

The survey will include fourteen questions (see Appendix). The first question is essential to the validity of the study. The first question asks if the respondent has purchased fruit within the last month. It is not necessary for the respondent to strictly be a “super fruit” purchaser, but it is imperative that they purchase fruit on a regular basis, if they haven’t purchased any fruit in the last month then they are not a candidate for this study. Once it is determined that a respondent is viable the next four questions establish

the respondent's basic fruit purchasing habits: how often they purchase them, what kinds of fruit and what characteristics the look for when purchasing fruit. These answers indicate how consistent in amount bought and diversified in choice the respondent is when it comes to fruit in general. Question five in particular could prove to be very useful to marketers. By knowing which characteristics consumers value most in fruit purchases, marketers can emphasize those attributes in marketing strategies. Next, questions six and seven will gage the respondent's basic awareness of "super fruits" by asking them to identify "super fruits" they recognize as well as indicating whether or not they'd pay more for "super fruits" and by how much. Questions eight and nine further examine the respondent's perception of "super fruits" and establish how health conscious they are in different ways. With question eight, if a respondent indicates they've purchased acai juice (or products) and/or pomegranate juice (or products) this reveals they are very aware of "super fruit" and may be loyal customers already. If they answer they've purchased, vitamins, SmartWater and/or Activia yogurt may indicate further healthy eating habits. Also all these items have had strong public marketing campaigns and will further indicate the influence marketing has on consumers. Question nine addresses the same indicators of "super fruit" perception and healthy living in a more direct manner by having the respondents agree or disagree with statements concerning both. The final five questions involve demographics, which will indicate more specific "super fruit" trends and frequencies that marketers may use later to customize strategies for the biggest potential profit.

<u>Procedure for Data Analysis</u>

Once the surveys have been completed, the data will be entered into Microsoft Excel to be statistically analyzed to determine the findings significance. Each survey was given an identity number in order to keep track of the surveys when they were entered into Excel. All of the questions were laid out into a spreadsheet, which allowed for the results to be entered into their corresponding questions. Every response has a number assigned to it according to that particular question's code, as illustrated in Table 1.

Table 1: Coding of Survey Responses

Question	Expression
1. Purchased fruit in the last month	1=Yes, 0=No
2. How often do you purchase fruit	1=More than once a week, 2=About once a week, 3=A few times a month, 4=About once a month, 5=Less than once a month
3. What kinds of fruit to you buy	1=Circled, 0=Blank
4. Do you always buy the same fruit	1=Yes, 0=No
5a. Flavorful	5=Extremely desirable, 4=Very desirable, 3=Somewhat desirable, 2=Slightly desirable, 1=Not at all desirable
5b. Nice Appearance	5=Extremely desirable, 4=Very desirable, 3=Somewhat desirable, 2=Slightly desirable, 1=Not at all desirable
5c. Good value for the price	5=Extremely desirable, 4=Very desirable,3=Somewhat desirable, 2=Slightly desirable, 1=Not at all desirable
5d. Health Benefits	5=Extremely desirable, 4=Very desirable, 3=Somewhat desirable, 2=Slightly desirable, 1=Not at all desirable
5e. Pleasing texture	5=Extremely desirable, 4=Very desirable, 3=Somewhat desirable, 2=Slightly desirable, 1=Not at all desirable
5f. Juicy	5=Extremely desirable, 4=Very desirable, 3=Somewhat desirable, 2=Slightly desirable, 1=Not at all desirable

5g. Grown Locally	5=Extremely desirable, 4=Very desirable, 3=Somewhat desirable, 2=Slightly desirable, 1=Not at all desirable
5h. Is on sale	5=Extremely desirable, 4=Very desirable, 3=Somewhat desirable, 2=Slightly desirable, 1=Not at all desirable
6. Super fruits you have heard of	1=Circled, 0=Blank
7a. Willing to pay more for super fruits based on added health benefits	1=Yes, 0=No
7b. How much more are you willing to pay for super fruits	1=No more than 5% above, 2=5-10% more, 3=11-20% more, 4=Over 20% more
8. Have you purchased any of these product in the last 6 months	1=Yes, 0=No
9a. I have specific fruits in mind when I shop	5=Strongly agree, 4=Somewhat agree, 3=Neutral, 2=Somewhat disagree, 1=Strongly disagree
9b. I believe super fruits to have superior health benefits than other fruits	5=Strongly agree, 4=Somewhat agree, 3=Neutral, 2=Somewhat disagree, 1=Strongly disagree
9c. I prefer familiar fruits to those I've never tried before	5=Strongly agree, 4=Somewhat agree, 3=Neutral, 2=Somewhat disagree, 1=Strongly disagree
9d. I consider myself to be very conscious of my health and well being	5=Strongly agree, 4=Somewhat agree, 3=Neutral, 2=Somewhat disagree, 1=Strongly disagree
9e. I like to be aware of how a product is good for my health	5=Strongly agree, 4=Somewhat agree, 3=Neutral, 2=Somewhat disagree, 1=Strongly disagree
10. Do you regularly shop at the following	1=This grocery store, 2=Trader Joe's, 3=Costco, 4=Health/Natural-food store
11. Education	1=11th grade or less, 2=Complete high school or GED, 3=Some college or technical school, 4=Completed college, 5=Graduate or Professional school
12. Income	1=Less than \$30,000, 2=\$30,000 to \$39,999, 3=\$40,000 to \$54,999, 4=\$55,000 to \$69,999, 5=\$70,000 or more
13. Age Group	1=18-24, 2=25-34, 3=35-44, 4=45-54, 5=55-64, 6=65-74, 7=75 or older
14. Gender	1=Female, 0=Male

Once the survey responses are entered into Microsoft Excel, the answers are aggregated into tables and charts. First, the objectives are answered by putting various responses into frequency tables. The first objective is answered by determining the

respondents’ frequency of fruit purchases, what kind of fruit they purchase and where they are likely to purchase them. The second objective examined how consumers consider health factors in their purchases. By averaging the total desirability characteristic ratings to see what factors were most important to respondents, it will show where “health benefits” ranks when purchasing fruit. Also, this can be further answered by examining the statements in question 9 relating to health. By getting the most frequent response for each statement, it will become evident how strongly the average consumer views health considerations. The third objective establishes the average consumers general understanding and attitude towards super fruit. Respondents would be considered well aware of super fruit if they recognize most of the fruits in question 6 to be super fruits. The frequencies of question 8 will suggest general awareness of particular products that already being marketed as super fruits, suggesting respondents’ affinity for such marketing strategies already in place. Furthermore, if a respondent is willing to pay more for super fruit, the percent more they were willing to pay will show how highly the value the benefits of super fruit. The hypothesis looked at the respondents’ willingness to pay more for super fruit products given their added value. If more than 50% of respondents were interested, the hypothesis was met.

Next, each question will be broken down into the frequency of responses and put into a table to show the overall response breakdown. Paired t-tests will be performed on the super fruit characteristics. This will reveal if there are significant differences between how consumers rated the various characteristics. This will be determined by the p-value, which expresses the probability of attaining a test statistic with accuracy. Small p-values indicate that results of the tests are significant. For this study, the confidence level is

0.01. If the p-value is less than 0.01, it indicated a significant difference where the margin of error, is less than 1%. Any p-value greater than 0.01 will indicate that there are not any significance differences, meaning respondents didn't significantly value any characteristic over the other, revealing which characteristics were the most important. The significant results should be marked within the frequency table, whether by highlighting or underlining.

After performing the paired t-tests, additional statistical tests are run using the target market to determine any significant results. The target market is chosen based on the last objective. The main goal of the survey is to determine if consumers are willing to purchase super fruit for the added health benefits in turn making it continually profitable for such marketing strategies. The target market is defined by the respondents who said that they would purchase super fruit based on added health benefits. Frequency tables of various demographic questions as well as purchasing habits in super fruit products will be created to show the breakdown of the target market. Results are entered into a single table to show the overall breakdown and resulting significance. The type of test to determine statistical significance varies according to the type of question.

The first sets of statistical tests run on the target market are chi-squared tests, which indicate relationships between categories. Chi-squared tests are useful in showing what characteristics make up the target and non-target market, such as gender or income level. Once again significant results should be made apparent by underlining or highlighting.

An additional set of paired t-tests will be performed on the fruit characteristics but this time will be specific to the target market, rather than all the respondents. As always any significant findings should be clearly indicated.

Ultimately, statistical tests and tables will show if consumers still believe that super fruit has added value therefore are willing to continue purchasing super fruit. They also will indicate what characteristics are most important to them, how much value they add according to price difference, and what types of consumers were mostly likely to purchase super fruit. This data will be used to determine if marketers should continue marketing strategies that revolve around stressing the superior health benefits of super fruits and super fruit products. If significant results are found from this survey analysis, it will indicate that there is still a strong demand for super fruit products, therefore a profitable direction for marketers looking for a piece of that multi-billion dollar market share

Assumptions

This study assumes that all respondents purchase fruit and have at least heard the term "super fruit" mentioned in one form or another. It also assumes that the respondents have answered honestly and don't have any biased agendas that could skew the results. It also is assumed that the grocery store in the given location is open to allowing student surveys in front of their store.

Limitations

The results found in this survey are only representative of the Southern Californian produce consumers. Results may have significance for other parts of the United States but cannot be expected to give a general representation of the country as a whole. Fruit seasonality often affects price of products, which could affect consumer habits. This survey is being conducting in the summer when most fruit prices are lower making consumers more apt to purchase fruit as opposed to if this survey was conducted in the fall or winter.

Chapter 4

DEVELOPMENT OF THE STUDY

Results

A total of 103 responses were collected, which just exceeded the minimum expectation. Once the survey responses were entered into Excel, the analyzing process began. Frequency tables were used to establish the objectives. The first objective was to determine basic fruit purchasing habits: how often they buy fruit, what kinds of fruit do they buy, where they buy fruit and if they stick to the same fruit purchases. As shown in Figure 1, 78% of respondents said they shopped for produce at least once a week. This potentially may have to do with shelf life; however it still indicates a healthy demand for fruit.

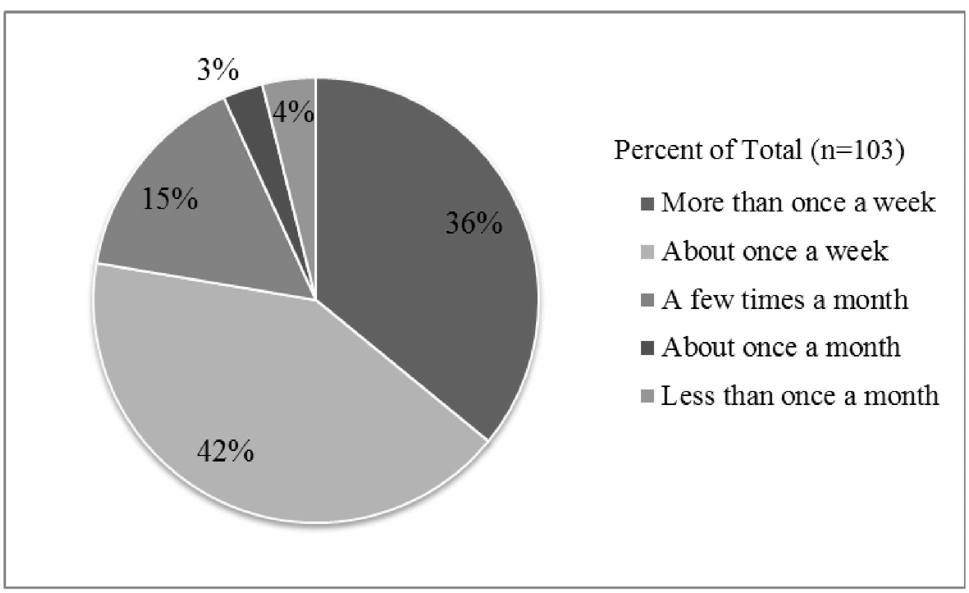

Figure 1. Frequency of Fruit Purchases

When given what types of fruit respondents were likely to purchase, respondents top fruit picks were Strawberries(with 75% of respondents buying regularly), Apples(72%), and Bananas(71%). In the middle of the pack were Oranges(53%), Peaches(47%) and Blueberries(43%). Finally, rounding out the choices were Tangerines(25%), Raspberries(21%) and Pomegranates(13%). These numbers indicate that the classic choices, such as strawberries are in high demand with consumers while the slightly more pricey (raspberries) or exotic (pomegranates) are a bit of a harder sell. As far as location, 72% of respondents indicated they shopped at more than once place for fruit. Of the choices given: 84% said they regularly shop at their local grocery store, 60% said Trader Joe's, 49% said Costco and only 19% said Health/Natural Food Store. When asked whether or not respondents always purchased the same fruit 51% said yes. Based on these findings, the average fruit consumer shops weekly at a few places, most likely a grocery store, mostly buys what is considered to be standard fruit choices and there is about a 50-50 chance they will only buy the same fruit.

The second objective was to determine how consumers consider health factors when purchasing fruit. When asked generally about their health 83% of respondents somewhat or strongly agreed that they consider themselves to be very conscious of their health and well-being. Also 66% said they somewhat or strongly agreed they like to be aware of how a product is good for their health. In order to understand consumers healthy habits specific to fruit, respondents were asked to rate the desirability of fruit characteristics. The responses for each attribute were averaged and ordered from greatest to least as shown in Table 2. The most desirable characteristic for respondents by far was Flavorful (4.76). Not only was the average the highest by almost a full point but after

testing proved to be significantly more important. The next most desirable characteristic to respondents was Health Benefits (3.92). This supports that consumers are concerned with how the fruit they purchase is good for them. It also was significantly more important than the other characteristics besides Flavorful. The only other significantly important characteristic was Juicy (3.87). The rest of the characteristics had decent middle averages with the exceptions of Grown Locally (2.83) and On Sale (2.50). This indicates consumers are more concerned with the fruit itself than where it comes from or how much it is.

Table 2: Average Desirability Ratings of Fruit Characteristics

Characteristic	Average Rating	P-value
Flavorful	**4.76**	**1.7E-17**
HealthBenefits	**3.92**	**6.22E-05**
Juicy	**3.87**	**7.41E-07**
NiceAppearance	3.75	0.02
PleasingTexture	3.50	0.05
GoodValue	3.39	0.84
GrownLocally	2.83	0.05
OnSale	2.50	0.18

The third objective was to establish the average consumer's perception of "super fruit". In the general sense, only 51% of respondents somewhat or strongly agreed that they believe "super fruits" to have superior health benefits compared with other fruits. Only 16% somewhat or strongly disagreed with the statement and the remaining 33% consider themselves neutral to the statement. When asked which "super fruits" the consumer had heard of, only 24% recognized half or more of the super fruits listed. As

shown in Figure 2, the most recognizable “super fruits” were the less exotic and more recently advertised ones such as Blueberries (91%), Acai Berries(85%) and Pomegranates(83%). The only “super fruit” really in the middle are Lychee with 55%. The remaining “super fruits” all had way less than half of all respondents recognizing them.

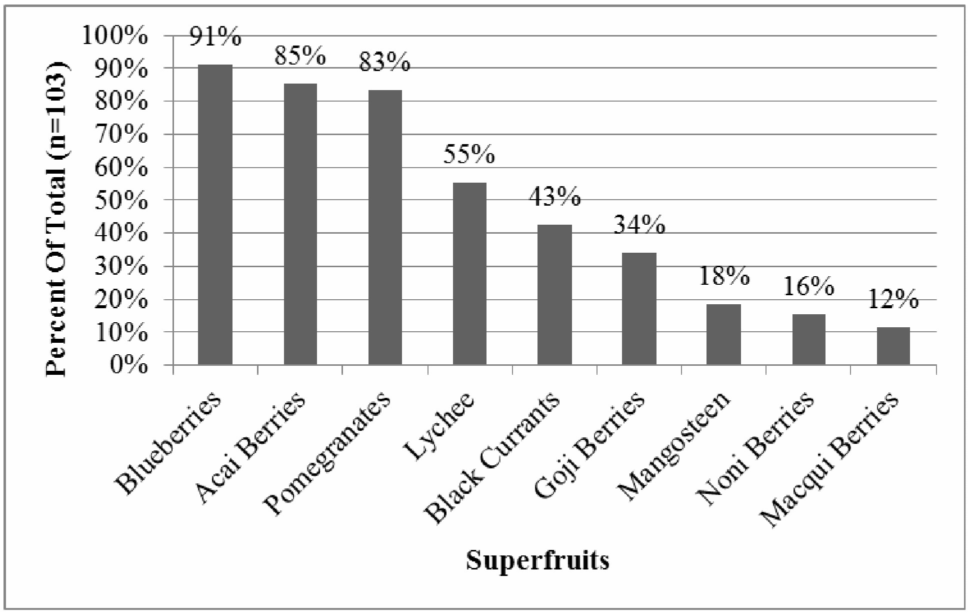

Figure 2. Respondents Awareness of Particular “Super fruits”

Regardless of a majority of the respondents recognizing both acai berries and pomegranates, only 56% said they had actually bought Pomegranate juice (or products) in the last six months. In addition, only 40% had bought Acai juice (or products) and only 28% had said they had bought both in the last six months.

Finally, the last objective was to determine whether or not super fruit marketing will continue to be viable based on the hypothesis that 50% of the respondents would be willing to pay more for the added health benefits of “super fruit”. When asked if respondents were willing to pay more for “super fruits” based on their added health benefits, 66% said yes they would. With this figure, the hypothesis was not only met but

exceeded by 16%. Of those respondents willing to pay more, Figure 3 illustrates how much more they are willing to pay for "super fruit" over standard without the additional health benefits.

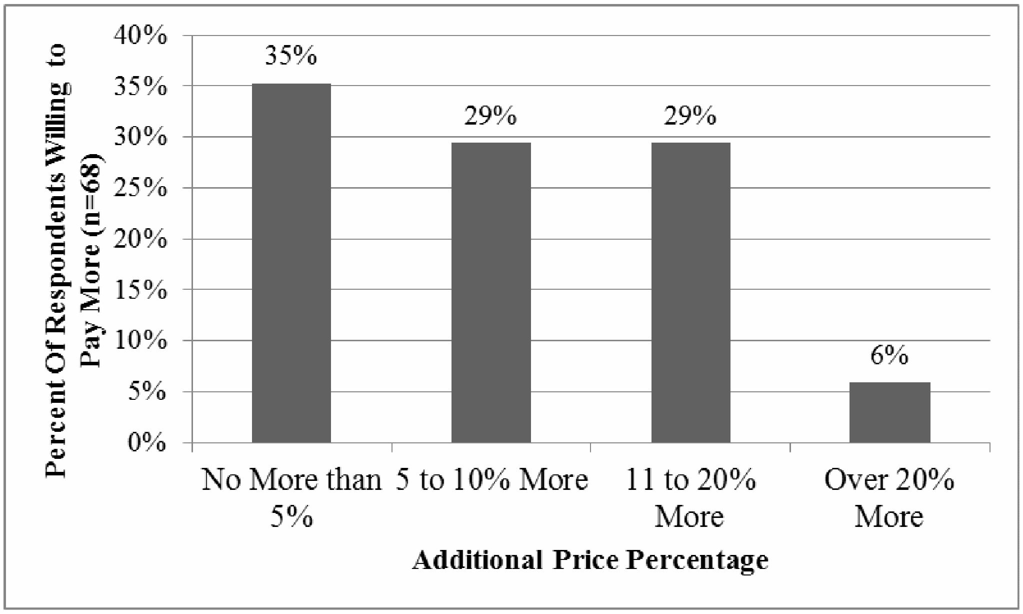

Figure 3. Respondents Additional Price for "Super fruits" Breakdown

The respondents are willing to pay more, the majority of respondents (64%) are sticking to the lower end of the spectrum not willing to pay more than an additional 10%. The next level of 11 to 20% more had 29% of the respondent, while only a meager 6% are willing to go higher at over 20% more.

Though the blunt question numerically fulfilled the hypothesis, the data gathered from answering the objectives helped support it, by establishing that consumers are concerned with their health and some feel that "super fruit" and "super fruit" products have more health benefits.

Table 3 shows the breakdown of the frequency of responses for each question. These frequencies are reflected as a percent of the total surveys collected, totaling to 103 observations.

Table 3: Frequency of Survey Responses

Question	Percent of respondents
1. Purchased fruit in the last month	Yes=100%, No=0%
2. How often do you purchase fruit?	More than once a week=36%, About once a week=42%, A few times a week=16%, About once a month=3%, Less than once a month=4%
3. Kinds of Fruit Purchased	
Apples	Yes=72%, No=28%
Blueberries	Yes=43%, No=57%
Raspberries	Yes=21%, No=79%
Oranges	Yes=53%, No=47%
Pomegranates	Yes=13%, No=87%
Peaches	Yes=47%, No-53%
Strawberries	Yes=75%, No=25%
Bananas	Yes=71%, No=29%
Tangerines	Yes=25%, No=75%
4. Do you always buy the same fruit?	Yes=51%, No=49%
5a. Flavorful	Extremely Desirable=81%, Very Desirable=17%, Somewhat Desirable=1%, Slightly Desirable=2%, Not at all Desirable=0%
5b. Nice Appearance	Extremely Desirable=23%, Very Desirable=41%, Somewhat Desirable=27%, Slightly Desirable=5%, Not at all Desirable=4%
5c. Good Value	Extremely Desirable=19%, Very Desirable=30%, Somewhat Desirable=29%, Slightly Desirable=13%, Not at all Desirable=9%
5d. Health Benefits	Extremely Desirable=34%, Very Desirable=31%, Somewhat Desirable=28%, Slightly Desirable=7%, Not at all Desirable=0%
5e. Pleasing Texture	Extremely Desirable=22%, Very Desirable=33%, Somewhat Desirable=23%, Slightly Desirable=16%, Not at all Desirable=6%
5f. Juicy	Extremely Desirable=39%, Very Desirable=23%, Somewhat Desirable=24%, Slightly Desirable=14%, Not at all Desirable=0%
5g. Grown Locally	Extremely Desirable=13%, Very Desirable=24%, Somewhat Desirable=17%, Slightly Desirable=26%, Not at all Desirable=20%
5h. Is On Sale	Extremely Desirable=2%, Very Desirable=15%, Somewhat Desirable=44%, Slightly Desirable=12%, Not at all Desirable=28%
6. Recognize Super fruit	

Mangosteen	Yes=18%, No=82%
Pomegranates	Yes=83%, No=17%
Acai Berries	Yes=85%, No=15%
Blueberries	Yes=91%, No=9%
Goji Berries	Yes=34%, No=66%
Noni Berries	Yes=16%, No=84%
Lychee	Yes=55%, No=45%
Black Currants	Yes=43%, No=57%
Macqui Berries	Yes=12%, No=88%
7a. Willing to pay more for Super fruit	Yes=66%, No=34%
7b. How much more	No More than 5%=35%, 5 to 10% More=29%, 11 to 20% More=29%, Over 20% More=6%
8. Purchased in the last 6 months	
Acai Juice (or products)	Yes=40%, No=60%
Pomegranate Juice (or products)	Yes=56%, No=44%
Weight Loss Supplements	Yes=10%, No=90%
Vitamins	Yes=62%, No=38%
SmartWater	Yes=38%, No=62%
Activia Yogurt	Yes=27%, No=73%
9a. Specific Fruit In Mind	Strongly agree=48%, Somewhat agree=32%, Neutral=16%, Somewhat disagree=3%, Strongly disagree=2%
9b. Super fruit Has Superior Benefits	Strongly agree=11%, Somewhat agree=41%, Neutral=33%, Somewhat disagree=7%, Strongly disagree=9%
9c. Prefer Familiar Fruits	Strongly agree=6%, Somewhat agree=50%, Neutral=20%, Somewhat disagree=18%, Strongly disagree=5%
9d. Conscious of Health	Strongly agree=15%, Somewhat agree=51%, Neutral=23%, Somewhat disagree=10%, Strongly disagree=1%
9e. Aware of How Products Are Healthy	Strongly agree=34%, Somewhat agree=49%, Neutral=9%, Somewhat disagree=8%, Strongly disagree=1%
10. Regularly Shop At	
Local Grocery Store	Yes=84%, No=16%

Trader Joe's	Yes=60%, No=40%
Costco	Yes=49%, No=51%
Health/Natural Food Store	Yes=18%, No=82%
11. Education	11th grade or less=17%, Completed High School or GED=11%, Some college/technical school=32%, Completed College=34%, Graduate or Professional School=7%
12. Household Income	Less than $30,000=55% $30,000-39,999=1% $40,000-54,999=3%, 55,000-$69,999=7%, $70,000 or more=34%
13. Age Range	18-24=74% 25-34=15% 35-44=4% 45-54=0% 55-64=8% 65-74=0% 75 or older=0%
14. Gender	Female=59% Male=41%

Now that the hypothesis was exceedingly met, it is worthwhile to begin testing the target market specific demographics in order to focus in on any significant relationships between responses. Once again, the target market was those respondents who said they were willing to pay more for "super fruit". This target market consisted of 68 respondents, meaning 35 respondents did not qualify for it. Table 4 shows the breakdown of responses for various demographic questions between target/non-target markets. Chi-squared tests were performed on each of the questions to determine any relationships between the target/non-target market and the demographic questions. The bolded and underlined results showed whether the target or non-target market held a larger percent of respondents who fell in that demographic category. The p-values were also included, with the significant values bolded and underlined.

Table 4: Frequency of Demographic Responses for Target/Non-Target

Question	Target (n=68)	Non-Target(n=35)	P-value
Times Purchased			
More than once a week	38%	31%	0.24
About once a week	37%	51%	
A few times a month	18%	11%	
About once a month	1%	6%	

Less than once a month	6%	0%	
Education			
11th grade or less	19%	11%	0.72
Completed high school or GED	9%	14%	
Some college/technical school	34%	29%	
Completed College	32%	37%	
Graduate or Professional School	6%	9%	
Income			
Less than $30,000	59%	49%	0.69
$30,000-$39,999	1%	0%	
$40,000-$54,999	3%	3%	
$55,000-$69,999	7%	6%	
$70,000 or more	29%	43%	
Age			
18-24	76%	69%	0.14
25-34	13%	17%	
35-44	6%	0%	
45-54	0%	0%	
55-64	4%	14%	
65-74	0%	0%	
75 or older	0%	0%	
Gender			
Female	**69%**	54%	**1.2E-34**
Male	31%	**46%**	

Results showed that there was only one demographic question that generated significant results. The gender demographic aggregated a miniscule p-value, well less than the 0.01 level of significance. This indicates that there is a significant relationship between the target market and gender. The target market has a significantly higher percentage of women while the non-target market has a significantly higher percentage of men.

An additional set of paired t-tests were run, in order to check for significant differences of fruit characteristic desirability between the target and non-target markets. Table 5 shows the average desirability of all attributes between target/non-target markets as well as the total sample. The bolded results showed whether the target or non-target

market held a larger percent of respondents who fell in that demographic category. The p-values were also included, with the significant values indicated.

Table 5: Target/Non-target and Characteristic Ratings

Characteristic	**Target (n=68)**	**Non-Target (n=35)**	**Grand Total (n=103)**	**P-value**
Flavorful	4.75	**4.77**	4.76	**1.04E-14**
Health Benefits	**3.99**	3.80	3.92	**0.001**
Juicy	3.79	**4.03**	3.87	**0.004**
Nice Appearance	3.71	3.83	3.75	0.18
Pleasing Texture	3.29	3.91	3.50	0.55
Good Value	3.47	3.23	3.39	0.03
Grown Locally	3.04	2.40	2.83	0.03
On Sale	2.59	2.34	2.50	0.84

The results show that the same features are significant for the target market as they were for the total sample. Not only is Flavorful still the clear top characteristic, it has almost even in desirability across all the samples. Health Benefits is still a clear second for both the target market and the whole sample, and it has almost a full 0.20 over the non-target market. This indicates clearly that the target market for “super fruits” consists of consumers who value a healthy lifestyle reflected in healthy eating habits in this case. Finally, the last significant characteristic was Juicy. Juicy actually ranks as second in the non-target market and is a lot higher than those rankings for the target market and whole sample.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of the study was to gain information on the current and future viability of “super fruit” marketing as influenced by certain respondents’ habits and attitudes toward “super fruit”. This was addressed by examining the data collected from 103 surveys. Respondents answered questions relating to this study’s overall objectives. The objectives included determining respondents’ typical fruit purchasing habits/patterns, how big a role respondents’ health influenced their fruit purchases, respondents’ general knowledge and perception of “super fruit” and whether or not all these factors add up to consumers putting value in “super fruit” products, in turn making “super fruit” marketing a profitable venture for the future. The hypothesis stated that there was continual value in super fruit marketing, if 50% of respondents claim are willing to pay more for “super fruits” for their perceived added health value. The objectives and hypothesis were answered by creating frequency tables. By analyzing the data using the total respondents, the target market for this study was narrowed down to one question’s response; those respondents who said they would pay more for “super fruit” based on the additional health benefits. This question not only defined the target group but it determined whether the hypothesis was met or not. Frequency tables and chi-squared tests were used on the demographic questions to show the breakdowns and to look for significant results between the target and non-target market. Paired t-tests helped gain insight on which fruit

characteristics were most important to all respondents as well as within the specified target market. These statistical tests helped determine what type of consumer is most likely to be in that target market and what they value.

Conclusions

Once the data had been put through numerous statistical tests and generated many frequency tables and charts, the key results of the study are a little mixed. Most of the developing trends indicate continuing potential success. Consumers are more concerned with their health causing them to check labels, watch their daily intake and look for the healthier options (Mandal, 2010). Of the total respondents, 83% of them somewhat or strongly agreed that they like to be aware of how products are good for them. That is a seemingly great majority to cater "super fruit" marketing to. Furthermore the hypothesis was not only met but exceeded, with 66% of respondents saying they are willing to pay more for "super fruits" another good sign of growing profits. However, that answer was meant to correlate with the fact that the respondents are paying more for "super fruits" because they believe "super fruits" to have exceptional added health benefits. Nevertheless, when asked if they agreed with the statement "I believe "super fruits" to have superior health benefits than other fruits" only 51% somewhat or strongly agreed. The second most frequent answer was Neutral at 33%, implying those respondents couldn't put any confidence or lack of confidence in the claims made on behalf of "super fruit". Another indication of lack of consumer confidence is the result that over 80% of respondents are well aware of pomegranates and acai berries, yet only 56% have bought pomegranate juice (or products) and only 40% have bought acai juice (or products) in the

last six months. The awareness of the products are evident, presumably a result of marketing strategies, yet there's little follow through on purchases, which the end goal after all.

Though average consumer perception seems to be non-committal that is still a better position for marketers to have consumers rather than the stubborn, inconvincible position regarding super fruit. There is potential with the target market. Based on the demographic frequency tables and chi-squared tests, the gender of the target market for "super fruits" was females, with the age range being anywhere from 18-44 years old, who are moderately to highly educated. The target market is likely to buy most of their produce at their local grocery at least once a week if not more and the majority of them are likely to always buy the same fruit, meaning once satisfied with a product they're likely to be incredibly loyal customers.

The target market rated flavorful, health benefits and juicy as the most important fruit characteristics this confirms the trends discussed previously of consumers, "super fruit" consumers in particular, significantly valuing the healthy factors and the taste of the fruit itself over price or growing location. As long as it tastes good and is good for the consumer, they're buying.

Recommendations

On one hand, in response to the reasonably high percentage of respondents who are willing to pay more for "super fruit", in conjunction with growing health trends there is promising evidence that "super fruit" marketing still has tremendous potential and profits to be gained. On the other hand, the possibility of consumers being pushed the

other way is a concern. It is true there is finesse to marketing a product in order to highlight all the pros and seemingly conceal any cons. But with trends regarding health and well-being, consumers are less likely to commit to a product if they think they're being bought or are just so overwhelmed by claims to really respond. Future marketing teams for "super fruit" products need to present their products in a way that instills confidence in consumers, and doesn't make them constantly question the validity of the claims. Previous research shows it is possible to utilize the simple founded claims of "super fruit" attributes successfully, like how Tropicana and Minute Maid merely tweaked their original product by show casing the initial health factors, that appeal to the target market. The littlest suggestion was all it took to boost Tropicana Orange Juice sales (Thompson, 2000). When presented to right way, there is tremendous opportunity for all products that can be justifiably connected with positive health benefits.

There is significant potential in re-working a survey based study of "super fruit" marketing in the more specific sense of how consumers would respond to a product visibly saying super fruit, as opposed to the inferred reputation of "super fruit" product. It would be useful to have tangible eye-catching signs that would remark not only on future "super fruit" marketing but advertising and product placement as well. The majority of the respondents buy produce at either their local grocery store or a Trader Joe's, bringing another opportunity of contrasting sales and effective placement.

This study also touched briefly on the potential of attempting to market more common place produce that has close to comparable "super fruit" antioxidant levels as a more domestic "super fruit" allure. The majority of all the study's respondents regularly buy strawberries. While they are rather profitable, is there potential for a higher profit

margin if they were to be assured to have been a “super fruit” all along? It presents the possibility of reintroducing long-standing produce in a different light to boost sales.

On the other end of the spectrum, a more secure confidence in the term “super fruit” could open the doors to hybrid fruits being introduced more comfortably to the public. With so much back and forth with GMO’s good or bad, introducing this produce immediately as “super fruits” may assure some of the hesitant public the health benefits to be well worth the cross-breeding.

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APPENDIX

SUPER FRUIT CONSUMER SURVEY

1. **Have you purchased fruit in the last month?** Yes No

2. **How often do you purchase fruit?**

   More than once a week   About once a week   A few times a month
   About once a month   Less than once a month

3. **What kinds of fruit do you buy? (Circle all that apply)**

   Apples   Blueberries   Raspberries   Oranges   Pomegranates
   Peaches   Strawberries   Bananas   Tangerines

4. **Do you always buy the same fruit?** Yes No

5. **Next, I have a list of features people may look for when they purchase fruit. Please indicate the desirability of each feature according to this scale. Try and use all the numbers in the scale**

5=Extremely desirable   **4**=Very desirable   **3**=Somewhat Desirable
2=Slightly desirable   **1**=Not at all desirable

a. Flavorful ______   b. Nice Appearance_____   c. Good value for the price____
d. Health Benefits_____   e. Pleasing texture_____   f. Juicy_____
g. Grown Locally_____   h. Is on sale_____

6. **Please indicate which superfruits you have heard of (Circle all that apply)**

   Mangosteen   Pomegranates   Acai berries   Blueberries   Goji berries
   Noni Berries   Lychee   Black Currants   Macqui Berries

7. **a. Are you willing to pay more for "superfruits" based on their added health benefits?**
   Yes No

   b. If yes, how much more are you willing to pay for "superfruit" above the price of comparable fruit without the health benefits?

   No more than 5%   5 to10% more   11 to 20% more   Over 20% more

8. **Have you purchased any of these products in the last six months**

a.	Acai juice (or products)	Yes	No
b.	Pomegranate juice (or products)	Yes	No
c.	Weight Loss supplements	Yes	No
d.	Vitamins	Yes	No
e.	SmartWater	Yes	No
f.	Activia yogurt	Yes	No

9. **Using the following scale indicate your degree of agreement with the following statements**

5= Strongly agree **4**=Somewhat agree **3**=neutral **2**=Somewhat disagree **1**=Strongly disagree

a. When shopping, I have specific fruits in mind I will purchase _________
b. I believe super fruits to have superior health benefits than other fruits _________
c. I prefer familiar fruits to those I've never tried before _________
d. I consider myself to be very conscious of my health and well being _________
e. I like to be aware of how a product is good for my health _________

10. **Do you regularly shop at the following? (Mark all that apply)**

Local grocery store   Trader Joe's   Costco   Health/Natural-food store

11. **What is the highest level of school you completed?**

11^{th} grade or less   Completed high school or GED   Some college/technical school
Completed college   Graduate or Professional school

12. **What is your annual household income?**

Less than \$30,000   \$30,000-\$39,999   \$40,000-\$54,999   \$55,000-\$69,999   \$70,000 or more

13. In what age range do you fall?
18-24   25-34   35-44   45-54   55-64   65-74   75 or older

14. Please indicate you gender   Male   Female

That concludes this survey. Thank you so much for your time and for helping me out on my senior project!