The Fitbit Study:  
A Tale of Patriotic Purchase Habits

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THE FITBIT STUDY: A TALE OF STIGMATA AND PURCHASING HABITS

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ABSTRACT

The objectives of this study are to measure the influence that self-perceived patriotism and athleticism has on intentions and purchase behaviors. In the current experiment, participants will receive information about Fitbit tracking devices, and then will then select, if interested, a Fitbit device of a given price. It is anticipated that individuals that are more patriotic and athletic will select more Fitbit tracking devices at higher prices based on the current consumer trends in American culture along with the basic nature of the fitness tracking product.

KEY WORDS: consumerism, patriotism, athleticism, fitness, advertisement, purchase habits

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Chapter I: Introduction

Purpose of Study

Companies spend millions of dollars annually to hire executives, celebrities, and professional athletes to improve their market sales. The money spent, goes towards innovative ways to endorse a product or by finding ways to help improve sales strategies. In order to reduce the amount of spending on hiring outside sources to help influence others to purchase a product, companies must be willing to incorporate new findings which capture the pulse of their consumers because of the competitive nature of business.

The United States is one of the largest economic machines in the world. Most of this is due to the fact that American citizens spend large sums of money on various products each and every day. Capitalizing on America’s spending habit, as a whole, is a practice that businesses use in order to persuade buyers that they actually need what is being sold (Levin & Jasper, 1996). Truth be told, most Americans don’t know the exact reason as to why they want to purchasing advertised wants and goods. It is almost innate in our nature as American citizens to work and collect enough money to go out and spend it on whatever seems appropriate at the time. Because we as a nation are so immersed in this cycle, it is labeled doing the country a service by keeping the economy afloat by pouring money right back into where it came from.

Thinking about creative ways to lure potential buyers is part of building an efficient process to promote and sell goods. The goal in creating ways to bring consumers to your product is to cast a wide net for possible customers by finding commonalities in the targeted audience (Lee & Park, 2014; Hung, 2014). In the United States, there are individuals of various ethnic backgrounds, gender identifications, and socioeconomic backgrounds that make it difficult to
find the common theme in all of us. In America's darkest hours as a nation, we have come
together on many occasions for one theme; the fact that we are Americans. Emotions and
behaviors that associated with one's country vary, hold heavy weight for many people based on
their experiences in everyday life (Levin & Jasper, 1996). Using one's sense of belongingness and
pride in one's nation can benefit product sales because of the emotional tie individuals may have
with the country itself.

In the world of sports business, finding the appropriate face to promote a specific brand
can be difficult, but finding the appropriate socioeconomic stance to support can be even harder.
With the state of consumerism changing every moment due to technology, marketing an idea or
message could possibly lead to stronger attachments between the consumers and the desired
products (Belch, 2013). In recent history, we have witnessed a major iconic brand such as Nike,
make a strategic business in which they endorsed an individual whose message spoke louder than
words. The Colin Kaepernick story stirred controversy became magnified to an even higher level
because Nike agreed to use him as their newest cover athlete to market their apparel. Due to the
controversy that surrounded Kaepernick, many felt that Nike was making a mistake by
supporting an unpopular opinion rather than celebrating a great athletic performer. Instead, the
advertisement which included Colin Kaepernick and his message did impact Nike in a way that
brought more attention and prospective consumers their way. It wasn't because of Colin
Kaepernick's production on the football field, but because a multi-billion-dollar company decided
to support a stance that at the time was extremely controversial. Nike's decision to promote their
products and brand based on a stance which supports societal improvements influenced their
customers and influenced those who were not regular Nike customers.
Theoretical framework

The objective of this study is to measure the influence that self-perceived patriotism and athleticism has on intentions and purchase behaviors. In the current experiment, participants will receive information about Fitbit tracking devices. The participants will then select, if interested, a Fitbit device of a given price. It is anticipated that individuals that are more patriotic and athletic will select more Fitbit tracking devices at higher prices based on the current consumer trends in American culture along with the basic nature of the fitness tracking product.

Limitations

The current study discussed faced many challenges along with obstacles during data collection and analyzing. Areas in which additional resources could have been used were to recruit more participants to have completed the study. Having a total N of 190 was a good foundation to understand and measure the variables available. However in order to determine the true strength and validity of the findings, a total N of 500 is preferred. Other limitation within the study included the Survey monkey database errors in classifying conditions. In order to determine the effect of certain Fitbit advertisements over others, separate conditions will need to be created within Survey monkey in order to ensure the responses are categorized accurately.

Definition of terms

Athletic is identified by the binary choice of either considering one’s self an athlete or not. Athleticism is defined as the level of fitness and athleticism one possesses. The number of Fitbit’s willing to purchase indicates the total number of Fitbit devices selected on the Fitbit product listing. The amount of money willing to spend on Fitbit devices include the total amount of money willing to spend on each Fitbit device selected from the Fitbit product listing. Patriotic
or more patriotic represents scoring above the median split using the mean score from the participants' responses on the Patriotic questionnaire. Non-patriotic or less patriotic is defined by the scores that fell below the median split using the mean score from the participants' responses on the Patriotic questionnaire.
Chapter II: Review of Literature

Celebrity Advertisement

Research has shown that celebrities, which include professional athletes, positively influence the purchase intention of the consumer (Zwilling, 2013). Findings have created a necessity to identify the specific characteristics of celebrities that most positively influence an advertiser's target audience. This study offers an innovative model for selecting celebrities that will most effectively endorse a specific product. Zwilling used 3 separate models to determine which celebrities should be selected for a given product. It was mentioned in the research article that the product importance was an important feature for determining which celebrity to use for endorsement. In addition, the relationship between the celebrity’s relevance and the product itself was noted to be important for decision making. The results for this study point out many prominent features that companies should acknowledge when making these types of decisions. If the consumers do not highly value the product to begin with, there are limitations to how much enhancement can occur for a participant’s attitude towards a product. Issues found within the results lie with the essential guide produced to help select the best celebrity for a given product.

The analysis and conjoint process that took place to create the marketing guide was very complete and informative. Essentially, the guide allows a company to list the product at hand and based on the celebrity popularity determine how successful the campaign launch will be based on different celebrity candidates. However, the data suggest that there is already recorded information based on sample products used for the guide. It does not seem to be very influential for startup companies or new brand items looking for celebrity endorsements. The model does not work unless there is some type of immediate feedback based on popularity and importance from a national consumer standpoint. If one looks to use a product that has been created in the
past, then it seems that the company should focus on similar celebrities that were used for the
given product at that time (Massey & Thaler, 2013). Comparing similarities between the new and
old product will serve as a foundation to determine the celebrity that will create maximum
consumer approval.

Companies often employ professional athletes to endorse their products in an attempt to
increase sales exponentially (Lee & Park, 2014; Hung, 2014). The purpose of the study run by
Lee and Park was to measure the relationship between celebrity endorsements and product
effectiveness of advertising under varying degrees of perceived fit between the celebrity and the
product image. American companies are focused on making sure the celebrities used will
maximize consumer attitude positively which result in more product revenue. Based on the
product image itself, using different types of celebrities were sought to play an important role in
the success of perceived consumer attitudes. The results reveal an interactive effect of
endorsement strength and celebrity-product match. This significant finding is more pronounced
among consumers with high product involvement than among those with low involvement. The
issue of interpretation within the results involves the classification of low product involvement.
The criteria for low and high product fit are based on perception of consumer. Not all consumers
think the same which is why not all companies use the same type of marketing techniques
(Hung, 2014). Though a perceived high product fit is ideal, there will always be exceptions to the
generalizing conclusions made. The study performed by Hung set out to examine links between
entertainment motives and celebrity experiences regarding influences on endorsed brand attitude.
The study looked at data which concluded the celebrity consumer relationship plays an important
role in perceived endorsement attitude. Depending on the athlete or celebrity, the product can
face huge amounts of approval or disapproval without the consumer knowing any information
about the product itself. This experiment serves to show companies that celebrity popularity is relevant when determining endorsement individuals. The entertainment value placed on each celebrity or athlete is dependent on certain individual, culture, and group rationale (Belch, 2013). To improve the results for these research studies, more research on celebrity by culture or specific group should be done to test the determining factors of celebrity perception. Just because a celebrity is not popular in national mass media conversations does not mean the celebrity cannot be used for a product that is targeting one sector of the population that may actually approve of the celebrities entertainment value.

*Buying Habits*

Research has also examined the advertising impact on sales when athletes are depicted in an Olympic setting (Jiang, 2013). This study was run to analyze the Olympics and ways in which it can play a positive role in articulating national pride and fostering national identity. The other attempt of the study was to show the complexities of the construction of Chinese nationalism and patriotism in postcolonial Hong Kong. In the current day, many individuals of all nations and cultures fail to see the difference between nationalism and patriotism. Nationalism includes emphasizing the importance of unity based on cultural background, language and heritage. Patriotism is defined as one’s love for their country and includes more values and beliefs. Jiang and his research team, set out to examine how athletic celebrities in Olympic settings effected consumer attitudes about an advertised product. Most Olympians are held to the highest standard of athleticism due to their talents and role in representing their country during competitive games. Olympic athletes, compared to professional or amateur players, receive more angulation because they were selected out of millions of individuals to represent their country for the entire world to view (Gray & Wart, 2012). National athletes are also recognized as heroes which
include a powerful background story for how they essentially fulfilled their dream of representing the entire nation. The results for these experiments, point out the difficulties in determining the true effects of the celebrities on the product. The research team’s states it was hard to truly determine how the fans and non-fans connected to the celebrities endorsed in the study. In order to validate this study, more research from different cultures is needed to test the comprehensive theoretical basis for understanding endorsement effects. Due to the strong political control and influence in the Chinese market, Olympian celebrity endorsements would need to be tested in similar environments.

Research reveals that Americans are more willing to buy products manufactured in America compared to other countries when Americans are employed for the perceived companies (Levin & Jasper, 1996). The study represents the oldest reference found during the background literature search. Focusing on the American consumer selection process is very necessary for the Fitbit study to assist with the design of the nationalist and patriotism questionnaires. This research methodology included products varying in the percentage of American workers employed in manufacturing each product (50% vs. 80%) and the company nationality (American vs. Japanese, German, or Taiwanese). The study included male and female university students aged 18 years old and older. The stimulus used to determine consumers’ willingness to purchase American manufactured products were automobiles. Because of the automobile market, different parts of the vehicle are made in certain countries and delivered for compensation purposes. The locational differences in which parts are made for a given automobile was driving the interest to know how much to Americans truly care about automobile manufacturing. An issue highlighted within the study, is that researchers only gave the participants two options for percentage employed workers. In the response questionnaire, the
participants were only given the option of 50% and 80% about percentage of American workers employed. In addition to the two percentage marks, a 3-point Likert-scale (slightly prefer to much prefer) was used to measure the participants attitude towards the different conditions. By doing so, it limited the participants, and their responses for consumer related data. If the study allowed the participants to enter in their own percentages, it would have been a better indicator of the average threshold for American worker needed to produce higher product purchases.

Consumers spend more when the payment mode differs only in physical form (Raghubir & Srivastava 2008). This fascinating experiment was able to determine that consumers spend more when they are spending scrip, which is a form of stored value certificate, versus cash of the same face value. This study focused on the consumer process which involves selecting a likable product and paying for the item with in hand currency. In society today, many consumers become obsessed with financial consciousness and the way they spend their dollars (Sainam, 2010). For companies to increase sales, they must determine ways to satisfy the consumer with likability along with securing payments in exchange for the good. The study included male and female university students aged 18 years old and older. A wide variety of payment options are used today by many American consumers. Cash, checks, debit, credit, gift cards, bank drafts, and money orders are all used as effective payment methods. A component of the study that stood out was the dollar amount they were using to measure the participants willingness to spend on the Starburst candy product. Because $1 seems so miniscule to most Americans today, the validity of this concept must be questioned. With changing the dollar amount to a much greater sum, it would be interesting to test how willing consumers are willing to spend in store value versus the matched amount in cash. Giving a participant the option to purchase a good for $50.00 as a gift card versus $50.00 in cash is more realistic to the modern American consumer. The raise
in currency puts the participant in a more real-world situation that reveal more accurate results. Results for this study seemed to be manipulated in a sense which drove participants to use credit cards more than cash. The context in which the money was given or visible to the participants depended on condition. Some subjects received both options at the same time, while others received the cash before the gift card and vice versa. In order to produce more reliable data, I believe a control group which received both forms of payment at the same time, should have been more of the focus. The presence of a gift card served to be an alternate method of payment which supported the immediate task of purchasing candy. There aren’t many gift cards produced, in current day America, for specific candy or candy stores. If more emphasis was placed on realistic purchases items like clothes or cars, there is no certainty most participants would have continued to use the gift card instead of the cash.

Studies explain a relationship between hypothetical products and the purchase for the consumer or someone else if the product is advertised as exclusive (Lee, Gregg, & Park 2013). The purposes of this study were to examine personal material welfare. Determining what products and possessions are most valuable to consumers are important components to maximizing advertising techniques. If able to determine what items consumers truly care for, advertisement agencies can save money on commercial time and publicity if buyers truly don’t care about the longevity of the object (van der Lans, van Everdingen, & Melnyk, 2016). The results of these studies shared how an interest in a hypothetical product to be bought either for oneself or someone else covaried with an experimental manipulation of product exclusivity and scarcity. With 120 Canadian college students participating, the researchers decided to use items such as custom fit dress shirts and watches as the products. Issues that arise within this study are in part with the subject experimental suggestiveness when revealing the desired product. An
experimental effect could have taken place which led participants to choose a more exclusive product based on the advertisement pitch itself. If the alternate product was not pitched with the same intensity or fervor, the construct validity in the data could be threatened. There was no indication in the methods, results, or discussion that stated each condition experienced the same experimenter. Furthermore, there was no specific indication that a script was prepared for the experimenters to use when giving advertisement information for the exclusive or nonenhanced products.

The process of choosing liked stimuli measured a lower level of enjoyment when selecting continuously compared to selecting randomly (Redden, Haws, & Chen 2017). The purposes of this study were to analyze the preconceived notion that the ability to choose, allows consumers to create and sustain more enjoyable experiences of transaction. In this study, the researchers concluded that those who chose repeatedly during ongoing consumption reported less enjoyment compared to those who received a series of random selections from the same set of liked stimuli. For participants, 89 undergrad students participated in the study for course credit. An important factor that should be noted is the age demographic for participants. Though the sample is like the normal consumer population, which included middle and older adults age 30 and up, the data has implications that age plays a role in the results. Participants aged 18 to 29 received a higher volume of reports which state their boredom with continuously selecting liked items. For the study, the criteria of options were based on music that was for sale. The different options of music were sampled for 45 seconds in a random order to ensure all the participants heard all three options of music. The pace and structure for younger consumers to purchase are more suited to faster and random selections processes (Sainam, 2010). With the introduction of online shopping and social media advertisement, more adults aged 29 and below are accustomed
to a quicker and randomized selection process which favors the data results. The options at which the participants choose from were also admittedly similar and well liked. The research team expressed this issue in their discussion which indicated a low level of differentiation between the options of music for the study. Also, the options that were used were all similarly liked by the participants which seemed to drive the results as well. Though the hypothesis was fulfilled successfully, the experimental validity could be improved by listing more than 3 options that were not all like one another.

*Advertisement Sponsors*

Data indicates that sponsor acknowledgment in advertisement is a predictor for consumer attitude in profit and nonprofit sporting events (Ko, Chang, Park, & Herbst 2017). The research sought out a way to determine if sponsorship placement influenced consumer attitudes for sporting events. The researchers also indicated that they were interested in measuring consumer habits for profit and nonprofit sporting events. Companies that hope to increase sales of products work endlessly to identify key attributes of certain sponsors that positively influence consumers' attitude formation. This study included 505 participants where specifically 303 were college sports sponsor viewers and 202 were 2016 FIFA World Cup sponsor viewers. The results suggested that prominence of sponsors is an important predictor of consumer attitude in both types of sporting events. A problem in the interpretation of the results are highlighted by the difference in questioning the actual advertisement effectiveness. Because the participants were already viewers of the sport, it was not made clear how the participants would be able to distinguish if they had noticed the sponsor information in the past. Notifying participants, from an event standpoint, that certain sponsors took part in the sporting event production created a form of publicity manipulation. Type of event, profit and nonprofit, experienced the same
feedback in sponsorship opinion based on the company selected. But actual consumers of the sporting events are more likely to know the company sponsors due to past relational situations (Lee & Park, 2014; Hung, 2014). It is vitally important for event managers and sponsorships to work in concert for publicity purposes. Just because consumers are aware of the sponsor does not directly mean the revenue of the event will dramatically increase.

Sports related sponsorships that are explicitly made to consumers for a linked sport, increased consumer awareness for fans and nonfans of the desired sport (Herrmann, Kacha, & Derbaix 2016). The complex experiment which included a participant pool of 2,540 subjects was conducted to measure the relationship between explicit sponsorship promotions for a desired sport versus sponsorship advertisement listed inside a specific sports store. The remarkable finding of this study revealed that fans and nonfans of the sport are more likely to be aware of a sponsorship for a specific sport when explicitly told through media notifications. Explicit statements of its sponsorship link with a sponsored sports entity, increases fans as well as nonfans' awareness of that relationship. In other words, if an individual is not a fan of a sport but sees a sponsorship advertisement related to the specific sport, they are more likely to be aware of the sponsorship relationship with the sport. In comparison, if a nonfan does not go into a specific sports store, they are less likely to be aware of the relational sponsors to the specific sport. The results of this experiment are explained in a problematic fashion. The conclusion made by the research investigators stated that by issuing explicit forms of advertisement which include sponsor and related sport delivers a leveraged advantage for thus sponsors. In actuality, the data concludes that the actual presence of explicit advertisement may be the leverage that sponsors should use. Even if the subject is a fan or not a fan of the given sport, the acknowledgment of knowing the sponsor is something that should be focused on. The relational factor to the given
sport should not be as promoted in the discussion compared to the difference between in sport and explicit technological advertisement for sports sponsors. The relational factor for sports and the related sponsor should generally is only important for actual fans of the specific sport. By recognizing the sponsor regardless of related sport, it allows the sponsor to expand its reach to other sports like the notable Nike, Adidas, Under Armor, and others.

**Hypothesis I**

\( H_1: \) Patriotic college students are willing to purchase more Fitbit products than non-patriotic college students.

\( H_0: \) There is no difference in patriotic college students and non-patriotic college student’s willingness to purchase Fitbit products.

**Hypothesis II**

\( H_2: \) Patriotic college students are willing to spend more on Fitbit products than non-patriotic college students.

\( H_0: \) There is no difference in the amount patriotic college students and non-Patriotic college student’s willingness to spend on Fitbit products.

**Hypothesis III**

\( H_3: \) There is a significant direct correlation between patriotism and athleticism.

\( H_0: \) There is not a significant direct correlation between patriotism and athleticism.
Hypothesis IV

H₄: There is a significant direct correlation between athleticism and the number of Fitbit products willing to purchase.

H₀: There is not a significant direct correlation between athleticism and the number of Fitbit products willing to purchase.

Hypothesis V

H₅: There is a significant direct correlation between athleticism and the amount of money willing to spend on Fitbit products.

H₀: There is not a significant direct correlation between athleticism and the amount of money willing to spend on Fitbit products.

Overview of Design

The outcome of this study will provide an understanding of how patriotic and athletic self-perception can influence spending habits for a well-known product such as Fitbit. This study will help to inform the public that they may occasionally be influenced to by a product due to their identity and status rather than for the product itself. The study will also contrast and compare if spending habits are influenced by one's perceptual identity to a specific group. This will lead to the possibility of individuals being more informed of the various influences on their behavior.
Chapter III: Methodology

Participants

There was a total of 190 college students that participated in the online survey. The college students that participated in this study either attended Houston Baptist University or Lone Star College. Participation was completely voluntary, and students were properly informed that they could withdraw from the experiment at any time. Each student received the survey link by the way of email from one of their professors.

Measures

Each participant was emailed the survey link, using the Survey Monkey database, from their professors which led them to the beginning consent form page. The survey also included a Patriotic scale of measurement, the Fitbit advertisement, the Fitbit product survey, and a post questionnaire on perceived fitness and athleticism serving as a manipulation check. The informed consent described generally the purpose of the study; the benefits and risks of participating in the current study, and the rights of the participant to withdraw from the study at any time (see Appendix A). The Patriotism Measure-Revised (Griffith, 2010) consists of 12 statements rated on a 7-point Likert scale ranging from -3, disagree strongly, to 3, agree strongly, with summed and averaged scores. The participants were instructed to select the responses that best described themselves. High scores on this scale indicated high parotitic individual perception. Participants then viewed the Fitbit advertisement with respect to their condition and indicate their willingness/interest in purchasing Fitbit devices as well as their agreement, or not, with several personal statements (see Appendix B). Participants also completed an additional survey that served as a manipulation check (see Appendix C). The additional or post survey
included questions pertaining to athleticism, daily activity level, military experience, and perceived fitness level.

The Patriotism Measure-Revised (Griffith, 2010) assessed patriotism and positive feelings toward symbols of the country, and nationalism and beliefs about the superiority of the country in relation to other countries. Twelve items were reworded to reflect contemporary language and referents, though much of the content was similar to items on Kosterman and Feshbach's (1989) scale. Individuals responded to items on a scale ranging from -3 (Disagree Strongly) to 3 (Agree Strongly). Individual ratings for each item on the scales were summed and averaged to create scale scores to compare rank groups. The 12 survey items were loaded on to their respective self-reported patriotism. The patriotism items showed adequate internal reliability ($\alpha = .83$) with cited item-total correlations at .58 or higher (see Appendix B).

Procedures

Houston Baptist University granted the researcher permission to conduct a supervised research study at its campus. Emails were sent to four professors requesting their permission to survey the students in their classes. The day of the data collection, the designated four professors distributed the Survey Monkey link, which contained the entire survey to their students, by way of email. Each participant was asked to read and accept the informed consent form agreeing to participate in the current study (see Appendix A). Next, participants were asked to complete the remaining surveys in the questionnaire link (see Appendix B). The surveys, included in the questionnaire link, were given to each participant to complete voluntarily. The survey was composed of the Patriotism Measure – Revised (Griffith, 2010), the Fitbit advertisement (the participants were then exposed to four different advertisements: an Non-athlete wearing a
Houston Rockets Team Jersey, an Non-athlete wearing a USA Olympic Basketball Jersey, James Harden wearing a Houston Rockets Team Jersey, James Harden wearing a USA Olympic Basketball Jersey. Each manipulation will come with information from The Fitbit mission statement. After being exposed to the advertisement information, participants indicated their willingness/interest in purchasing Fitbit devices as well as their agreement, or not, with additional personal statements), the Fitbit Product Listing, and an additional survey serving as a manipulation check.

The entire questionnaire took approximately 10 minutes to complete. After the participants completed the questionnaires, the survey link thanked participants for their voluntary participation in the study. Lastly, the scores were analyzed and compared to the hypothesis. None of the questions or other aspects of the experiment were neither embarrassing nor different than what may be expected in the typical day of a college student.
Chapter IV: Results

The data collected indicated responses to several different background questions and personal identification statements. Of the 190 college student participants, 48.3 percent was patriotic, and 51.7 percent was non-patriotic. 35.5 percent of the college student participants identified as athletes. This score was considered the median/mean for the patriotism scale. There were 12 participants who stated that they were active or served in the military while 78 noted they had immediate family members that were active or served in the military. Average amount willing to spent on Fitbit items was $128.15 and the average amount of Fitbit product willing to purchase was .85. A mean of 35.3 percent indicated that they already tracked their fitness levels and 68.9 percent noted they would track fitness levels if accessible through an app.

Hypothesis I

The initial test run examined if patriotic college students were more willing to purchase Fitbit devices compared to non-patriotic college students. An independent sample t-test was run with patriotism as the independent variable and the number of Fitbit products willing to purchase as the dependent variable. The results indicated that patriotic students were willing to purchase significantly more Fitbit products than the less patriotic students ($t (178) = -3.838$, $p < .001$). More patriotic students reported higher willingness to purchase Fitbit products ($M (87) = 1.15$) than less patriotic students ($M (93) = .58$). In light of these findings, the null hypothesis was rejected.

Hypothesis II

Another test was run to examine if patriotic college students were willing to spend more money on Fitbit devices compared to non-patriotic college students. A separate independent sample t-test was run with Patriotism as the independent variable and amount of money willing
to spend on Fitbit products as the dependent variable. The results indicated that patriotic students were willing to spend significantly more money on Fitbit products than the less patriotic students ($t(178) = 3.710, p<.001$). More Patriotic students reported higher willingness to spend more on Fitbit products ($M(87) = 172.18$) than less patriotic students ($M(93) = 85.91$). Considering these findings, the null hypothesis was rejected.

*Hypothesis III*

There is a correlation between patriotic college students and identifying as athletic. A bivariate correlation was run to measure the relationship between those who were patriotic and identified as athletic. The results indicated a significant weak direct correlation between patriotic college students and those who identified as athletic ($r(176) = .168, p<.05$). There was trend such that college students with higher levels of patriotism were more likely to identify as athletic. In light of these findings, the null hypothesis was rejected.

*Hypothesis IV*

A correlation exists between college students that indicate they are athletic and the number of Fitbit products they are willing to purchase. Another bivariate correlation was run to measure the relationship between athleticism and willingness to purchase Fitbit products. The results indicated a non-significant weak indirect correlation between identifying as Athletic and willingness to purchase Fitbit products ($r(186) = -.100, p=.174$). There were no trends between athleticism and willingness to purchase Fitbit products. Based on these findings, the null hypothesis was not rejected.
Hypothesis V

There is a correlation between college students that indicate they are athletic and the amount of money they are willing to spend on Fitbit devices. An additional bivariate correlation was run to measure the relationship between Athleticism and the amount willing to spend on Fitbit products. The results indicated a non-significant weak indirect correlation between identifying as athletic and willingness to purchase Fitbit products ($r (186) = -.103, p=.162$). There were no trends between identifying as Athletic and the amount willing to spend on Fitbit products. Based on these findings, the null hypothesis was not rejected.

Post Hoc results

When analyzing the results for the question which asked, “To what extent do you consider yourself physically fit,” a trend appeared when compared to the number of Fitbit products the college students where purchase. In sort of a U-shaped effect, those who reported the highest and lowest levels of physical fitness perception had a suppressed response to the number of Fitbit devices they were willing to purchase. Body perception and personal physical fitness status have impacts on fitness device perception of usefulness (Cho, Lee, Kim, & Park, 2015). If the student didn’t consider themselves physically fit or if they considered themselves the most fit, the responses revealed that they were not interested in purchasing the device at all. College students that were in the middle of the two on the 6-point Likert style scale however indicated the highest responses in the number of Fitbit devices they were willing to purchase. These bell curve type findings were also apparent when comparing the same question to the amount willing to spend on the Fitbit devices. This data suggest those that consider themselves moderate or in the middle of physical fitness are willing to purchase more Fitbit devices and
spend more money to purchase the Fitbit devices. Those that do not consider themselves physically fit at all or view themselves as most physically fit d reported very low response levels to the number of Fitbit products willing to purchase and the amount willing to spend on the Fitbit devices.
Chapter V: Discussion

Summary of Results

The data in this study suggests that college students that report themselves as patriotic
based on their questionnaire results are willing to buy more Fitbit devices that those who didn’t
report as patriotic. In addition, the findings reveal that college students who report as patriotic
are also more willing to spend more on Fitbit devices than those who were less patriotic. This
finding is statistically significant and is enough reject the null hypothesis that there is no
difference in patriotic college students and non-patriotic college student’s willingness to
purchase Fitbit products and the amount they are willing to spend on the devices it. This supports
previous research that suggest consumers are more willing to purchase items when the individual
can easily identify and bond with a stance or industry (Gray & Wert, 2012). Those that were
patriotic found more connection in the Fitbit device and use for the Fitbit device compared to
those that were not patriotic.

Participants that identify as athletic and patriotism also had a strong relationship with one
another when compared individually. College students that scored higher in patriotism also
identified as athletic more than those who scored lower in patriotism. Though the strength of the
correlation was weak, there was a significant trend in the result pulled from the data. In
hindsight, this effect provoked additional thinking towards the individual participants identifying
as athletic or not. In certain respects, athleticism and pride for one’s nation share similar
characteristics for the individual person (Lee & Park, 2014; Hung, 2014). Components such as
self-worth and intrinsic motivation could be instilled within the participants, which lead to a
significant correlation between patriotism and athleticism.
The Fitbit devices are used all around the world to help promote and track various fitness components. For many consumers, when they are struggling to complete a difficult task, they turn to name brand products to help their performance (Park & John, 2014). Based on the nature of the Fitbit product, the study included an additional post questionnaire which gathered individual data relate to health, military experience and affiliation, and fitness perception. The data Fitbit’s willing to purchase and amount willing to spend on Fitbit devices are disassociated with health and fitness. College students that identified as Athletic were not willing to buy more Fitbit devices that those who didn’t identify as athletic. There was also no significant relationship between identifying as Athletic and willingness to spend more on the Fitbit devices. The result of not-statistical significance is enough evidence to accept the null hypothesis that there is no difference in those who identify as athletic college students and non-athletic college student’s willingness to purchase a specific amount of Fitbit devices and amount willing to spend on Fitbit’s.

Overall, the reoccurring theme within the results became apparent due to the strengths of the correlations. Specifically, the fact that patriotic college students purchased more Fitbits than non-patriotic, and that athletic perception had little effect on the participant’s willingness to purchase a fitness and health-based product. College students who didn’t classify themselves as athletic had the same willingness to purchase devices that catered towards athletic individuals. Part of this could be due to the stigma that is associated with health and fitness-based products (Massey & Thaler, 2013). These items are designed to track different cardiovascular levels and produce daily physical movement goals. For a person who doesn’t consider themselves athletic, purchasing the device may constitute as a status change to be viewed from others as fit. The college students’ willingness to purchase and willingness to spend was along the lines of
behaving as though I may not need a Fitbit, I still need the Fitbit. When viewing the responses from those that identify as Athletic and their willingness to purchase or spend on the Fitbit device from a different perspective, a conclusion could be reached that college students that identify as athletic have similar willingness to purchase fitness devices because they are most likely already fit. Sport athletes and gym members are likely to manage their own fitness levels without the need of purchasing a new device. In addition, those who identify as athletic may not need the Fitbit device to assist others in realizing they are physically fit.

When viewing the specific Fitbit devices each college student selected, the results showed though individuals expressed a willingness to purchase and spend on the devices, different Fitbit devices were selected by each person. This effect of selective consumerism also leads to the finding that levels of patriotism had an influence on the college student's amount willingness to spend on the Fitbit devices. The college students that were more patriotic selected the more expensive Fitbit devices offered on the Fitbit device listing. The concept of consumer option is applicable to this situation because the option of having multiple products at various prices also seemed to drive the responses for number of Fitbits and the amount spent per device (Belch, 2013). If there were only one or two options at vastly different prices, there could have been a suppressed response due to lack of variety and choices offered. Though a significant amount of the sample selected a willingness to purchase none of the Fitbit, a sense of blind patriotism appeared for those that had the highest levels of patriotism. Of the eleven questions regarding patriotism, eight items were correlated with the total number of Fitbit’s willing to purchasing. This significant trend also directs back to the theme of behaviors reflecting thoughts of not needing a Fitbit, but still needing the Fitbit for some collective reason.
Limitations in Retrospect

In hindsight, the current study faced difficulty with gathering all of the required data to analyze more relationships between patriotism, consumerism, and identifying as athletic. Resources such as more time to collect and run additional tests to measure more information about the participants themselves could have been utilized to illustrate a more detailed story. Other resources include money in order to find ways to recruit more student participation to complete the surveys. Other limitations that should be noted is that the participants viewed four separate condition advertisements but were not categorized by those conditions itself. Due to Survey Monkey's functionality, there was no way in identify the condition for each specific survey completed.

Implications

Today, companies spend millions of dollars annually on consumer advertisements. The absorbent amount of money goes into hiring top celebrities and executives to increase the sales of their products. For a company such as Fitbit, there are many different ways to target their audience for product devices and promotional deals. The data in the current research suggests that there is no difference in the willingness to purchase a Fitbit device in those that identify as athletic or fit and those that do not. Fitbit should not invest too much time into selling to a specific sector of their audience because the truth is; everyone wants to track their fitness level in some way. Athletes are inclined to have a way of tracking their own fitness from a physical or cognitive standpoint. Whereas, someone who works out less often may need a device in order to keep track of progress over a period of time. The Fitbit products and idea of tracking one's health
has spread far beyond the athletic realm. There are single mothers who count calorie intake to the same degree as professional athletes that are paid millions of dollars themselves.

Society in America has not fully used the influence of patriotism on consumerism to their advantage. Based on the rejected null that that there is no difference in willingness to purchase or spend with patriotism, companies should incorporate more patriotic stances. The idea that patriotism can lead to more sales may seem exploitative, but is profitable, nevertheless (Gray & Wert, 2012). In countless occasions, products were purposefully produced in colors that resemble the American flag for the same psychological reason. Buyers tend to purchase items with unconscious influences that they don’t even realize until after the fact. Knowing this, Fitbit could take advantage of Patriotism by offering special product sales around Memorial Day, the fourth of July, and Veteran’s Day. Fitbit could also create advertisements using Olympic athletes or everyday people exercising with an American flag or Team USA logo.

Patriotism is not the same concept as nationalism. Patriotism can be described as one’s love of pride for their country. While nationalism is the idea that one’s country can do no wrong and that other countries should acculturate to their standards. Though the definitions seem different, they are constantly misused in conversations of importance. In 2017, Colin Kaepernick sued the National Football Association for attempted collusion and unfair work treatment with respect to the first amendment. At the time, there were no rules in the NFL official rules handbook that stated all players and coaches must stand for the playing of the National Anthem before kickoff. Kaepernick decided to take a knee in order to bring attention to racial injustices and brutality by some police officers. Kaepernick also stated that his intentions were not to offend or show lack of respect for our active or past military veterans.
This controversy stirred a huge amount of attention in the media, but the major company Nike was able to capitalize on it. Nike decided to use Kaepernick’s patriotic act of freedom of speech to improve the racial tension and bring light to important conversations by creating an advertisement that supported his behavior. Their advertisement painted Colin Kaepernick in a patriotic fashion for showing a willingness to take a knee for something not worth standing for. Those who bashed his decisions were not wrong because consumers have their own opinions. However, it is no coincidence that Nike improved their quarterly sales after the commercial released because of the authenticity that could not be ignored. Promoting patriotism, or love for one’s country in order to make it even better has worked in the past and most recently. If a major corporation like Nike took the risk of promoting a controversial patriotic character, the Fitbit Company should consider this tactic when comparing themselves to their competitors.

Recommendations for Future Studies

In the future, permissions to compare the willingness to purchase when comparing the Fitbit product and Apple Watch product would need to be approved by the Institutional Research Board for legality reasons. Though no real money would be used in the proposed Fitbit versus Apple Watch study, issues with marketing and false advertisement could become terminate the study entirely. It would also be recommended that a third fitness tracking device be compared to the Fitbit device and Apple watch to determine if the brand influences the buying habits. These issues would be the result of running fictitious marketing comparisons between two major companies without their permission or knowing. Other ideas for expanding on these results would be to measure the gender differences in the number of Fitbit’s willing to purchase and the amount they are willing to spend on the Fitbit devices.
References


Appendix A

Houston Baptist University

SUBJECT CONSENT FORM

Informed Consent

Primary Investigator:
Dr. Joseph Pelletier

Student Researcher:
Sean A Bogle Jr

Title of Project:
The Fitbit Study: A Tale of Purchasing Habits in College Students

I acknowledge that on ______________, I was informed by ______________ of Houston Baptist University of a project having to do with the following:

The outcome of this study will provide an understanding of how Patriot and Athletic self-perception can influence spending habits for a well-known product such as Fitbit. This study will help to inform the public that they may occasionally be influenced to by a product due to their identity and status rather than for the product itself. The study will also contrast and compare if spending habits are influenced by one’s perceptual identity to a specific group. This will lead to the possibility of individuals being more informed of the various influences on their behavior.

I am fully aware of the nature and extent of my participation in this project and the possible risks involved or arising from it. I understand that I may withdraw my participation in this project at any time without prejudice or penalty of any kind. I hereby agree to participate in the project.

Printed Name: electronic

Signature: electronic

Address: electronic

Date: electronic
Appendix B

Which Fitbit(s) would you be most likely to purchase? (Please place a checkmark in the box or boxes of each Fitbit device you would actually be interested in purchasing)

None (I am not interested in purchasing any Fitbit devices) □

Fitbit Zip $59.99 (All Day activity, wear and water resistant, tap display, long life, and wireless syncing) □

Fitbit One $99.95 (All day activity, wireless syncing, clock and display, water resistant, and sleep with alarms) □

Fitbit Flex $99.95 (All day activity, Progress display, sleep with alarms, water resistant, and wireless syncing) □
Fitbit Charge $129.95 (All Day Activity, watch and display, caller ID, long battery life, auto sleep with alarms, and wireless syncing)

Fitbit Charge HR $149.95 (Pure Pulse Heart Rate, Long battery life, Workout and all day activity, auto asleep with alarms, Caller ID, Wireless Syncing, and Exercise tracking)

Fitbit Surge $249.95 (GPS Tracking, Pure Pulse Heart Rate, All-Day Activity, Multi-Sport, Long Battery Life, Notifications and Music, Auto Sleep with Alarm, and Wireless Syncing)
Appendix C

Additional Survey

1) Do you consider yourself an athlete? (Please circle) Yes or No

2) On how many days in the last week did you work out (brisk walk, run, swim, cycling etc.) for 30 minutes or more?

0  1  2  3  4  5  6  7

3) Do you already use devices to track your own fitness level? (Please circle) Yes or No

4) How much extra money this past month would you have had to spend on Electronics or merchandise? (Please circle one range, e.g., 0-25 or 51-75)

{0-25  26-50  51-75  76-100  101-150  151-200  201-250  251-300  300+}

5) If you could access an app on your cellular device to track fitness levels, would you? (Please circle) Yes or No

6) Are you currently active or have you ever served in any branch of the military? (Please circle) Yes or No

7) Do you have any immediate family members who are active or served in any branch of the military? (Please Circle) Yes or No

8) To what extent do you consider yourself physically fit?

0  1  2  3  4  5  6
Not at all Very Much So

Thank you for participating in this survey
Figure 1a.

Patriotism

$r = .168$

Athleticism

$r = -.100$

Consumerism

# of products
Figure 1b.

Patriotism

$ r = 0.168 $  

Athleticism  

$ r = -0.103 $  

Consumerism  

Amount spent on products  

$ r = 0.268 $