Introduction
In the 2013 popular movie release *Her* a lonely man falls in love with his operating system. As implausible as the premise seems, as the story unfolds we see countless people on city streets intently interacting with their smart phones -- ignoring everything, and everyone -- in order to connect with machines. It does not look so different from everyday life in the new information age. As researchers in the past have noted, virtual reality is becoming so sophisticated it often surpasses reality in terms of its attractiveness to many people (Boye 2014). It is therefore not hard to imagine a future in which many, most, or even all, consumers become emotionally attached to technology-driven devices.

This study explores the factors that might drive individuals to go beyond mere operating system brand loyalty to becoming members of “brand cults” that look upon a particular brand of operating system as indispensable to their lives. Specifically, it examines the factors that drive many people to become so enamored with the Apple operating system that social scientists (Muniz and Schau 2005) compare the phenomenon to religious fanaticism.

The idea of individuals becoming emotionally attached to their possessions is not new. The concept of consumer loyalty to brands has been identified and discussed in the social science literature for several generations. A descriptive definition of brand loyalty is “The (a) biased, (b) behavioral response, (c) expressed over time, (d) by some decision-making unit, (e) with respect to one or more alternative brands out of a set of such brands, and (f) is a function of psychological (decision-making, evaluative) processes” (Jacoby & Chestnut, 1978). Brand loyalty thus implies the continuous purchase of a particular brand over others in the market for an extended period of time. This “behavioral response expressed over time” occurs, in large part, due to past experiences with the product. These experiences, whether positive or negative, will determine a customer’s propensity to switch to similar brands within the industry or to remain brand loyal. The above definition will aid in our search for identifying key characteristics within individuals that determine their loyalty towards a particular brand of operating system.

Literature Review and Theoretical Framework
Brand loyalty can be thought of as the attraction to one product or service over similar products or services within a particular market. Brand loyalty contributes to the meaning of a brand, which contributes to a firm’s equity and can become the firm’s most valuable resource. Accordingly “the brand reflects the special relationship and bond we forge with our customers. It is a constellation of values that goes beyond physical attributes to include intangibles and, importantly, customer perceptions” (Czerniawski & Maloney, 1999). There are many approaches that attempt to explain the overall concept of brand loyalty and how it should be defined (Denoue & Saykiewicz, 2009). The goal is to discover the motivations between the buyer and the brand. Occasionally, the focus may be on emotional ties between the consumer and brand. Other approaches focus their attention on the loyal behavior of the buyer towards the branded product (Rudawska, 2005). The objective in any approach, however, is to describe how the relationship between behavioral and attitudinal elements interact to create and establish a brand loyal customer. The successful combination of the aforementioned elements, along with the incorporation of external influences, will assist in differentiating repeat purchase individuals from brand loyal individuals and allow marketers to better understand the customer’s decision-making process.

Brand loyalty is important to a firm’s ability to create brand equity and value. If a firm can create a meaningful image that fosters an emotional attraction to a product or service, its competitive advantage will increase substantially. Developing a brand requires time and patience; however, the value of a brand may be the most critically important asset a particular firm owns. There are other benefits to the firm, including (1) brand loyalty often reduces the overall costs of marketing (Rosenburg and Czepiel, 1983); (2) Customers who are loyal often
require less enticement to repurchase a product or service, allowing the firm to invest its resources elsewhere; and (3) customers who are committed to a brand are often willing to pay higher prices for products and will be less sensitive to price fluctuations (Krishnamurthi and Raj, 1991). The hoped-for result is a consumer who would be willing to pay more for a product, even when competitors offer lower prices.

Traditional attitude models have partitioned attitudinal antecedents into three categories: (1) cognitive- those associated with informational determinants (brand beliefs, for example); (2) affective- those associated with feeling states involving the brand, and; (3) conative- those related to behavioral dispositions to the brand” (Dick and Basu 1994). These three antecedents of relative attitude are identified as contributing to brand loyalty and the nature of consumer behavior. The cognitive approach deals primarily with the informational determinants when selecting a brand. Such determinants include accessibility, confidence, centrality, and clarity. Affective antecedents include emotions, moods, primary affect, and satisfaction. Finally, conative antecedents include switching costs, sunk costs, and expectations.

Touzani and Temessek (2009) integrated the behavioral and attitudinal approaches while focusing on the impact of brand commitment. Commitment can be described as “the extent to which an action is dedicated to the completion of a line of action” (Johnson, 1973). Calculated commitment relates to the consistent purchasing behavior of the consumer as long as the perceived benefits outweigh the switching costs to other brands within the market (Amine, 1998). Affective commitment, as previously mentioned, is based on consumer desire to continue the relationship with the brand due to emotional forms of attachment. According to Touzani and Temessek (2009) “the models which incorporate brand commitment as a central element of brand loyalty allowed a better knowledge of the cognitive and affective factors in the formation of this phenomenon.” Their research framework only considers factors which have a direct influence on brand loyalty and consist of: perceived risk, perceived differences among the brands, brand sensitivity, brand trust and brand attachment.

From the literature discussed in the previous section, it is understood that loyalty to a product or service is the ultimate goal for organizations looking to remain competitive and profitable. Developing loyalty requires strategic positioning, advertising, and time to perfect. Predictive frameworks can be assembled from behavioral and attitudinal studies that penetrate the characteristics of individuals who are most likely to be loyal to a particular brand. The aim, therefore, is to create a predictive model that will attempt to identify and explain loyalty towards a specific product, specifically individual factors that comprise determine brand loyalty towards Apple.

Apple is one of the world’s most influential business organizations in terms of technological innovation and creativity. From its humble beginnings, Apple has revolutionized technology in ways never before imagined. Created by Steve Jobs and Steve Wozniak, the once low-key garage operated business is now a multi-billion dollar player in the highly competitive technology arena. The Apple brand and its popular products -- iPads, iPhones and the rest -- have generated a customer base that is undeniably loyal and in some cases described as a “brand cult” (O’Grady 2009). This, in large part, is due to the company’s strategy to design products that are easy-to-use and artfully designed. The products and services offered by Apple Inc. have set the standard in quality, design, and price for competitors. Few firms have had the ability to influence an industry in such a monumental fashion.

Apple consumers are often described as fiercely loyal to the point of demonstrating something resembling a religious devotion to the brand (Taute and Sierra 2014). The personal identification and unrelenting loyalty to the firm has created what is commonly described as a “brand cult.” This intense brand focused devotion demonstrates how the product can dominate the personalities of loyal individuals. Collectively, these individuals make up a subculture of consumption that shares a commitment to the Apple brand. Individuals within the consumer base, or cult, have a sense of belonging that otherwise would have been missing from their lives. In psychology this is explained by Social Identity Theory. Belonging to a group can fulfill the need for social identity and self-definition or self-esteem which can create a stronger attachment to the brand (Halliday & Kuenzel, 2010). Groups form into communities that congregate around brands that communicate who they are collectively. Apple
has been able to create and develop this phenomenon with its customers to an extreme perhaps never witnessed before. The Apple brand cult is by all appearances highly sustainable and will continue to generate the firm profits for many years into the future.

One related attitudinal construct recently proposed by Thompson et al (2014) is known as Individual Collectivist Values (ICV). ICV describe the shared beliefs, attitudes and norms that are expressed by the individual towards the relationship between the individual and the cult. ICV guide the behavior of an individual and capture the relative importance an individual accords to groups versus self. Thompson et al (2014) found that differences in individual level ICV have a significant impact on traditional models of brand loyalty. The findings of the study demonstrate that consumers with high collectivist values will be more loyal to a focal brand even when brand trust and perceived quality are at low levels. This research is thus pertinent to the goal of linking a set of individual characteristics that might predict loyalty to Apple operating systems. Consumers who are high in ICV are defined as people who find meaning through social relationships, through identifying with groups, emphasizing values that serve the in-group by subordinating personal goals, and preserving in-group harmony and interdependence of in group members. In addition, consumers high in ICV favor brands that tend to reinforce their interdependence and provide group gratification.

A framework (see Figure 1) was developed to illustrate the relationships between the criterion variable Brand Loyalty Toward Apple, and several predictor variables all highly correlated to ICV. Our model identifies seven variables including opportunism, conservatism, trustworthiness, piracy, gender, innovativeness, and technical savviness.

**Figure 1**

Theoretical Framework Linking ICV to Apple Loyalty

![Theoretical Framework Linking ICV to Apple Loyalty](image)

**Propositions**

P1: Opportunism (-)

P2: Trusting (+)

P3: Gender (-)

P4: Innovativeness (-)

P5: Conservatism (-)

P6: Tech Savviness (-)

P7: Piracy (-)

**Hypotheses**

**Opportunism.** The first proposition states that individuals who are more opportunistic will less likely exhibit collectivist values and thus be less loyal to Apple products. Opportunism is defined as the art, policy, or practice
of taking advantage of opportunities or circumstances often with little regard for principles or consequences. Opportunism concerns the dissemination of incomplete or distorted information, and often involves deceit and treachery to achieve the desired aim or objective (Sakalaki, Kazi, & Karamanoli, 2007). It is implied that individualists, out for their own self-interest, exhibit opportunistic behavior more so than those with collectivist mindsets. It is proposed that individuals who are more opportunistic will be less loyal to Apple because of their self-oriented mindset. This conflicts with the idea of collectivism since collectivists desire qualities such as integrity, interdependence, sociability, and in-group harmony (Triandis, McCusker, & Hui, 1990). At least one previous study demonstrates that individualists’ opportunistic propensity is higher than collectivists’ opportunistic propensity (Sakalaki, Kazi, and Karamanoli 2007).

**Trust.** It is proposed that there will be a positive relationship between trust and brand loyalty to Apple. Apple’s brand cult consumers, by repeatedly buying the newest and latest versions of Apple products, demonstrate inherent trust in the products and services provided by the firm. It follows that they would be trusting in other aspects of their lives. Numerous studies have linked ICV with trust. One study indicated that consumers high in individual level collectivist values maintain high levels of trust and strong relationships, whereas consumers low in individual level collectivist values show low levels of trust and weak relationships (Doney, Cannon, & Mullen, 1998). Many authors imply that trust is high in consumers who exhibit high levels of ICV because such consumers possess a more interdependent worldview. They place more importance on relationships and nurture them with more care than those consumers who are low in individual collectivist values (Schwartz, 1990).

**Gender.** It is proposed that females are more likely to possess collectivist values and will ultimately be more loyal to Apple than males. Previous research has shown that males tend to exhibit tendencies toward independence whereas females tend to exhibit tendencies toward interdependence. For females “interrelatedness with society, social relationships, and social groups is a more important part of their identity than it is for men” (Melynk, Osselaer, & Bijmolt, 2009). In contrast to the views of women, men view themselves as independent and consider concerns of society or other people secondary to the individuals. In a taste test females were more likely to be influenced by the opinions of others as compared to that of males (Meyers-Levy, 1988). The results suggested that males are more self-focused whereas females are focused on both themselves and others. It follows that if women are more likely to establish and maintain relationships with individuals, they may also be more likely to do the same with collections of individuals. Women would therefore be more likely to join a brand cult, and therefore more likely to be loyal to Apple.

**Consumer Innovativeness.** Consumer Innovativeness is defined as the extent to which consumers demonstrate a willingness to adopt new products (Nguyen et al 2014). Consumer innovators, by definition, must be willing to switch brands readily and as one would expect, there are many studies that show a negative relationship between consumer innovativeness and brand loyalty (see, for example Steenkamp and Olivares 2014). Conversely, ICV encourage conformity and limits, discouraging individuals from acting first or thinking independently. Collectivists would be expected to be more concerned with the views of others, thus hindering their ability to take risks and try new products earlier than others. There is support in previous research for the proposition that consumer innovativeness and consumer propensity toward ICV should be inversely related (Dobre et al 2009).

**Conservatism.** Conservatism can be defined as the opposition to any form of change or innovation. In a political context, conservative individuals are those who cling to traditions and reject any form of radical change. Previous social science research has established a link between conservatism and interest in individualistic causes (Zucker and Weiner 2006). Since ICV is conceptualized as the opposite of individualism, it is proposed that there will be a negative relationship between an individual’s political conservatism and propensity to join a brand cult. Accordingly, the more politically liberal a person perceives himself to be, the greater the likelihood that he will be loyal to Apple products.

**Technological Savviness.** The sixth variable under examination in this study relates to the technological capabilities of the consumer. It is proposed that the more tech-savvy the individual, the less loyal he will be to Apple products. Technological savviness is defined as people’s perceived knowledge of technological devices
and how they operate. The long-held philosophy of Apple has been to design products that are renowned for their simplicity (O’Grady, 2009). Because tech savvy users are not likely to place a premium on simplicity to the same degree as others, we propose that more tech-savvy consumers are less likely to purchase Apple products.

Since their technological demands are more advanced, they require products that possess more sophisticated capabilities. It also follows that individuals with higher levels of technological ability possess greater levels of innovativeness, thus increasing their likelihood of maintaining an individualistic mentality and not conforming to collectivist behaviors. Lantos (2014) notes that Millennials are a very tech savvy market segment and display a very low propensity to brand loyalty, suggesting that the two constructs are inversely related.

**Digital Piracy.** The final variable under review is digital piracy, which is defined as the individual’s propensity to engage in the illegal downloading of media and software over the Internet. It is proposed that the greater an individual’s propensity to engage in digital piracy, the less likely he will display ICV and therefore be loyal to Apple. Individuals who pirate digital content demonstrate certain behaviors that may not be in accordance with collectivist values. Al-Rafee and Rouibah (2010) found a significant negative correlation between religious orientation and propensity to engage in digital downloading. Since religious individuals can be expected to possess higher ICV than non-religious individuals, it follows that there should be a negative relationship between digital piracy propensity and inclination to join the Apple brand cult.

In summary, following are the seven hypotheses:

**H1:** Individuals who are more opportunistic will be less loyal to Apple products than individuals who are less opportunistic.

**H2:** Individuals who tend to be more trusting will be more loyal to Apple products than individuals who are less trusting.

**H3:** Individuals who are female will be more loyal to Apple products than males.

**H4:** Individuals who are more innovative will be less loyal to Apple products than individuals who are less innovative.

**H5:** Individuals who are more conservative will be less loyal to Apple products than individuals who are less conservative.

**H6:** Individuals who are more tech-savvy will be less loyal to Apple products than individuals who are less tech-savvy.

**H7:** Individuals who frequently engage in digital piracy will be less loyal to Apple products than individuals who show a low propensity to engage in digital piracy.

**Sample and Methodology**

A total of 1,035 internet users were surveyed via an online survey. The survey was distributed via social networking through sites such as Twitter and Facebook. A link to the online survey was initially posted to social media sites by 75 undergraduate students. The posting encouraged others to ‘share’ the link on their own sites, and the survey was passed along accordingly. In addition, the survey was promoted via e-mail to a list of high-tech workers in the Northwest United States. These workers were also encouraged to pass the survey along via e-mail or social networking sites. The responses were submitted anonymously over a period of several months as the survey ‘went viral’. Ultimately, the number stabilized at 1,035.

The demographic characteristics of the sample are shown in Table 1. The sample is nearly equally weighted between males and females, but skewed toward younger, less affluent respondents than might be the case if the sample was better representative of the population of US-based internet users. However, viewed from the perspective of the internet usage rather than users, the survey could be viewed as representative, since younger users tend to spend more time online and are more likely to use broadband connectivity (Kilian et al., 2012).
Table 1
Demographic Characteristics of Respondents

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENDER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>495</td>
<td>47.8</td>
</tr>
<tr>
<td>Female</td>
<td>540</td>
<td>52.2</td>
</tr>
<tr>
<td>AGE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 15</td>
<td>10</td>
<td>01</td>
</tr>
<tr>
<td>15-25</td>
<td>625</td>
<td>60.3</td>
</tr>
<tr>
<td>25-35</td>
<td>120</td>
<td>11.6</td>
</tr>
<tr>
<td>35-50</td>
<td>185</td>
<td>17.9</td>
</tr>
<tr>
<td>Over 50</td>
<td>95</td>
<td>9.2</td>
</tr>
<tr>
<td>INCOME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10K</td>
<td>245</td>
<td>23.6</td>
</tr>
<tr>
<td>$10K-$25K</td>
<td>140</td>
<td>13.5</td>
</tr>
<tr>
<td>$25K-$50K</td>
<td>155</td>
<td>14.9</td>
</tr>
<tr>
<td>$50K-100K</td>
<td>305</td>
<td>29.5</td>
</tr>
<tr>
<td>Over $100K</td>
<td>90</td>
<td>18.4</td>
</tr>
</tbody>
</table>

Research Results
A presentation of relevant descriptive statistics is represented above in Table 2. As indicated, the means for each of the variables are all relatively close to the midpoint (3.0) of the maximum and minimum. While there was multicollinearity between some of the variables, and some of the variables showed evidence of skewed distribution, the statistical techniques used to analyze these data are robust and usually biased against finding significance when assumptions are violated (Hair, 1992). For the variable GENDER, females comprised a slightly larger percentage of the total sample group, and nearly 70 percent of individuals chose PC over Apple.

Table 2
Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPPTSM</td>
<td>1035</td>
<td>1</td>
<td>5</td>
<td>2.68</td>
<td>1.356</td>
</tr>
<tr>
<td>TRUSTING</td>
<td>1035</td>
<td>1</td>
<td>5</td>
<td>2.85</td>
<td>.998</td>
</tr>
<tr>
<td>INNOVATIVENESS</td>
<td>1035</td>
<td>1</td>
<td>5</td>
<td>2.97</td>
<td>1.150</td>
</tr>
<tr>
<td>CONSERV</td>
<td>1035</td>
<td>1</td>
<td>5</td>
<td>2.91</td>
<td>1.220</td>
</tr>
<tr>
<td>TECHSAVVY</td>
<td>1035</td>
<td>1</td>
<td>5</td>
<td>3.19</td>
<td>1.427</td>
</tr>
<tr>
<td>PIRACY</td>
<td>1035</td>
<td>1</td>
<td>5</td>
<td>2.72</td>
<td>1.430</td>
</tr>
</tbody>
</table>
According to the data presented in the Coefficients Table (Table 4), our model and hypotheses were shown to be valid. The first variable examined yielded a t-value of -7.891, suggesting that individuals who are more opportunistic will be less loyal to Apple products. The second variable also supported the hypothesis, giving a t-value of 4.263 and suggesting trusting individuals will be loyal to Apple. The third variable, gender, yielded a score of .525, which was directionally in support of the corresponding hypothesis, but the relationship was not strong enough to be considered significant. The fourth variable entered into the model was innovativeness. The variable t-score was -.240, which was directionally consistent with H4 but not strong enough to be considered significant. The fifth variable was conservatism, which yielded a t-value of -6.713, suggesting that individuals who are more conservative will be less loyal to the Apple brand. The sixth variable, tech-savviness, yielded a t-value of -2.974, supporting the proposition that individuals who are more technically inclined will be less loyal to the Apple brand. Finally, propensity toward digital piracy produced a t-value of -1.755, which was strongly directionally in favor of the corresponding hypothesis but not quite strong enough to be declared significant.
H6: It’s not wrong to break or bend the rules once in a while to gain something of importance.
H2: I believe that most people are generally trustworthy.
H3: I am a: male/female
H4: I take pride in being original in my ideas, and I am often the first person in my network of friends to try the latest thing.
H5: Politically speaking, I consider myself: very liberal/very conservative
H6: I consider myself “tech savvy.” I can easily navigate the Internet and I have the “know how” to pirate all types of digital content from the web.
H7: I download free pirated digital material (songs, movies, software) from the Internet.

**Table 6**

**Research Questions**

<table>
<thead>
<tr>
<th>H6</th>
<th>H7</th>
</tr>
</thead>
<tbody>
<tr>
<td>(TECHSAVVY)</td>
<td>(PIRACY)</td>
</tr>
<tr>
<td>-.039</td>
<td>-.022</td>
</tr>
<tr>
<td>.013</td>
<td>.012</td>
</tr>
<tr>
<td>-.122</td>
<td>-.069</td>
</tr>
<tr>
<td>-2.974</td>
<td>-1.755</td>
</tr>
<tr>
<td>.003</td>
<td>.079</td>
</tr>
</tbody>
</table>

a. Dependent Variable: APPLPREF

**Discussion**

After conducting the study, the resulting data analysis generally supported the theoretical framework and demonstrated strong support for four of the seven hypotheses. In regards to opportunism, that data collected indeed suggested that those who exhibit higher levels of opportunism will be less loyal to Apple products. It can be inferred that individuals who possess opportunistic mentalities do not demonstrate collectivist values necessary to be identified as loyal individuals. Therefore, it is their nature to resist conformity (collectivism) and retain a more individualistic view in their decision-making processes. This, consequently, makes them less likely to be in a brand cult. Opportunism also yielded a high correlation with piracy (.542) emphasizing that individuals who are opportunistic will be more likely to pirate various forms of material. Trusting individuals, as supported by the data, are more likely to be loyal to Apple products because they maintain a higher level of collectivist values. Consumers who trust the brand will remain loyal to the product because of the reduction in perceived risk.

When analyzing the role of gender, the data gathered found little evidence that females appeared to be more loyal to the brand, which might be explained by the bias in the sample toward younger respondents. Previous studies have found that there are considerably fewer gender effects among Millennials in the USA compared to older age-based cohorts (Ng et al 2010). The data suggests that innovative individuals will be less loyal to the Apple brand. This may be caused by their tendency to be more individualistic. Individuals who were more conservative, according to the results, also proved to be less inclined to join the Apple brand cult. It can be concluded that since these individuals shy away from collectivism, their likelihood of being loyal to a firm whose core is cloud-based and group-identity based is somewhat lower than non-conservatives. Individuals who are tech-savvy and who are likely to pirate material are both less likely to be brand loyal to Apple, according to the data. The correlation matrix also shows that there is a relatively high correlation between tech-savviness and piracy (.555).

The resulting data can be used in a variety of ways by researchers and marketers to improve their understanding of consumer behavior and marketing techniques. Each of the independent variables measured allows us to better understand their relationship with the characteristics of those in a brand cult and ultimately how they create brand loyalty. Marketers can utilize the data provided from our tests to better understand the relationship of consumer behavior and loyalty to a brand. They can develop marketing strategies that incorporate the findings from our research to more thoroughly penetrate their target market and achieve a higher rate of success. Marketers can also use the results from the correlation matrix to recognize the strength between the independent variables measured and implement them into their marketing plans. The research and results also identify the relationship with collectivism and brand loyalty. Those who possess high levels of collectivist values are more likely to be part of a brand cult and will thus be more loyal to a firm. Marketing psychologists can use our results to attribute behaviors with various decision making outcomes of the consumer. This could, in a sense, bridge the gap between...
attitudinal and behavioral studies to construct a model of brand loyalty that incorporates both in to the equation. Our results could aid in the predictability of the consumer and their behavioral tendencies to a brand. Studies can also be done on other brand cults, such as Harley-Davidson, to compare and contrast the findings with our research and to identify key characteristics that may overlap.

This study lends credence to the theoretical framework in which Individual Collectivist Values is a multi-dimensional factor that predicts propensity to join brand cults. Specifically, those who possess high levels of collectivist values are more likely to be part of a brand cult, and those that possess low levels of collectivist values – or high levels of individualistic values – are less likely to join brand cults. A logical extension of the research would be to apply the framework to other known brand cults, such as Harley Davidson or Louis Vuitton. Once all of the external and internal determinants of ICV are known, marketing practitioners could use this information to identify those consumers most likely to join a brand cult and develop media and message strategies that appeal to their collectivist orientation. This could help to bridge the gap between attitudinal and behavioral studies by providing a model of brand loyalty that incorporates both types of variables into a single framework.

The digital world has not yet arrived at a place in which consumers are falling in love with their operating systems, but with the formation of the biggest brand cult in history around one particular operating system, perhaps that day is not as far off as many believe. Certainly, given the orientation of marketers to developing relationships with consumers, it cannot be denied that it is every marketing practitioner’s goal to induce consumers to fall in love with the brand and the products. The fact that consumers don’t yet do so can perhaps be attributed to the lack of sophistication and development of marketing science, aided by technology.

So from the marketer’s perspective, it is only a matter of time.

References


