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NOTHING BUT NET:
Measuring the Effectiveness of Athlete Endorsements on Twitter

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Nothing But Net:
Measuring the Effectiveness of Athlete Endorsements in Social Media

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Abstract

Social media has revolutionized the way people interact not only with each other, but also with celebrities. Websites such as Twitter and Facebook provide direct access and interactivity with athletes. Athletes have embraced social media for both personal and business purposes.

Whether it is posting pictures from a restaurant or posting a link to their latest sneaker commercial, athletes have discovered ways to use social media to promote themselves and their favorite brands. Previous research on celebrity endorsements revealed several characteristics typically found in celebrity endorsements: source attractiveness, source credibility, and celebrity-product congruence. However, all research to date has been conducted on traditional media outlets, such as television and print advertisements. This research seeks to expand on previous research rooted in traditional media such as television and print to determine whether or not athlete endorsements through social media are effective. Effectiveness in this case can be defined as the consumer's attitude towards the ad, brand, or athlete endorser. The study also proposes a three-step model to illustrate how consumer's process persuasive communication such as celebrity endorsements in social media.

Introduction

Where celebrities go, fans will go. This applies to social media as much as it does in the real world. In the past, celebrities used to seek promotion through magazines and television appearances. Today, celebrities are turning to websites like Facebook and Twitter to promote their brands and connect with fans (MacMillan, 2009). Among those at the forefront of this movement are professional athletes. Social media has revolutionized the way people interact with athletes by providing direct access and removing the middleman that is traditional media (Corazza, 2009). This gives athletes the freedom to promote themselves or their sponsors directly to fans at anytime.

Social media has significantly impacted the sports industry in various aspects, but specifically in the way sports are covered. As Corazza (2009) points out, reporters and fans no longer have to wait for Dwight Howard to grant an interview to a media outlet to discuss his offseason plans. With just a click of a button, fans can see him getting a pedicure (DwightHoward, 2009c), watch him eat seven plates of breakfast at Cracker Barrel (DwightHoward, 2009a; 2009b) or read about his trip to Haiti on his blog (Howard, 2010). Social media has a way of humanizing athletes (Greer, 2009). Fans want to know the person behind the character and social media enables this by providing a two-way line of communication. According to Duncan and Moriarty (1998), communication is the foundation of consumer-marketer relationships in an online context, not persuasion. Social media provides the platform needed to create a relationship between the fan (consumer) and the athlete (marketer). This two-way path enables a direct relationship between athlete and fan, providing a lucrative opportunity for marketers and sponsors. For example, NBA player Dwayne Wade posted a picture of his multi-colored socks and sneakers while attending a Chicago Bears game. Wade

tweeted, “rocking my Jordan 6 ring Winters” (DwayneWade, 2011). Eight followers replied to Wade’s tweet and another 80 re-tweeted the post. Some athletes offer prizes like tickets or other souvenir items to their followers to encourage interaction. For example, soccer star Mia Hamm tweeted, “Who wants signed @FCBarcelona kits? I'll tweet location at 1pm. Be near White House” (MiaHamm, 2011).

In October 2009, the Federal Trade Commission introduced "Guides Concerning the Use of Endorsements and Testimonials in Advertising," a set of regulations for blogs and social networks like Twitter (Lordan, 2009). The purpose of the guidelines was aimed at protecting consumers from misleading product information (Lordan, 2009). For Twitter users, especially celebrities and athletes, this means they must disclose when a tweet is a paid endorsement. By using tags like #spon, #paid, or #ad, followers then know it is not a personal opinion and that they can make an informed choice about whether they also support the brand. For example, NBA star tweeted, “Watching the All-Star Game? @PepsiMAX is giving fans the chance to create an All-Star roster of their own #MAXFoD #ad” (RealLamarOdom, 2011). Odom notified his followers that this was an endorsed tweet by using the tag #ad. Because Twitter is a global service, other countries have encountered the same problem regarding the nondisclosure of endorsed tweets. The Office of Fair Trade (OFT) in the United Kingdom issued a warning to celebrities and the companies that employ them for endorsements that they must be clear about their methods (Whitworth, 2011). The OFT described the nondisclosure of endorsed tweets as “deceptive” and said that it must stop (Whitworth, 2011).

Athletes like Michael Jordan and Dwight Howard have turned their athletic abilities into multimillion dollar endorsements. For example, Michael Jordan has endorsed General Mills’ Wheaties, McDonald’s Quarter-Pounders, Gatorade, Hanes underwear, and, of course, his

signature endorsement Nike's Air Jordan sneakers (Mathur, Mathur, and Rangan, 1997). Over the years, Michael Jordan has proven athlete endorsements can be effective. His return to basketball in 1995 caused the stock value at related firms to increase by \$1.016 billion. Analysts coined this *The Michael Jordan Phenomenon* (Mathur et al., 1997).

A large portion of the marketing budget for many companies is spent on celebrity endorsers (Dyson & Turco, 1998). Given *Sports Illustrated's* "2010 Fortunate 50" list, it is evident some companies still believe in the power of athlete endorsers. The 2010 list included 15 football players, 16 basketball players, 13 major league baseball players, three NASCAR drivers, two golfers and one boxer (Freedman, 2010). In just endorsements, golfer Tiger Woods earns the top spot with \$70 million, followed by fellow golfer Phil Mickelson with \$53 million. Basketball players LeBron James (\$30 million), Dwayne Wade (\$12 million) and football quarterback Peyton Manning (\$15 million) round out the top five (Freedman, 2010).

Research shows celebrity endorsers can affect consumer product choice (Agrawal and Kamakura, 1995) and product trial (Miciak and Shanklin, 1994). As sporting events continue to increase in popularity, it is likely that marketing and advertising practitioners will continue to spend millions of dollars on athlete endorsements to enhance the effectiveness of persuasive communication efforts.

As companies continue to make large investments in athlete endorsers, they are also putting more effort and resources into growing their online presence. More Fortune 500 companies are embracing social media tactics as part of their business and marketing strategies (Barnes, 2011). A study conducted by the University of Massachusetts Dartmouth Center for Marketing Research revealed that 59% of companies used Twitter in 2010 and 71% used Facebook, a jump from 61% in 2009 (Barnes, 2011).

In order to increase their online presence, companies are investing more money into online advertising, especially in social networks, than ever before. It is estimated that nearly 10.8% of spending on online advertising in the United States will go to social networks in 2011 (Williamson, 2011b). That is expected to rise even more in 2012 to 12.1% (Williamson, 2011b). Research company, E-Marketer, forecasts that worldwide spending on social network advertising will reach almost \$6 billion in 2011, with \$4 billion of that going to Facebook and \$150 million to Twitter (Williamson, 2011a).

However, it takes more than advertising dollars to run a successful social media campaign. The rise of social media has caused companies to lose some hold over consumers. Companies can no longer just “shout” at consumers through traditional media, but instead they must focus on the relationships (Li and Bernoff, 2008). Therefore, company strategies must be rooted in communication and interaction with consumers, not persuasion. The emphasis on relationships is largely due to the fact that customers are having discourse about brands in online forums and companies cannot control what is said. Criticism about brands or services can be posted to Facebook or Twitter accounts for hundreds or thousands of fans, friends, or followers to see. Li and Bernoff (2008) have coined this social media movement the *groundswell*. Groundswell is “a social trend in which people use technologies to get the things they need from each other, rather than from traditional institutions like corporations,” (Li and Bernoff, 2008, pg. 9).

Therefore, social media is a virtual intersection where fans, athletes, and companies can meet in a common forum. This paper will extend previous research on athlete endorsements to determine their effectiveness in social media, specifically Twitter. Previous research revealed several recurring factors related to celebrity endorsements: celebrity attractiveness and

credibility, match up hypothesis (celebrity-product congruence), message and product type, level of involvement, number of endorsements by celebrities, target receiver characteristics, overall meanings, celebrity activation (Erdogan, 1999, Kim and Na, 2007; Sliburyte, 2009). This research will focus specifically on the following: source attractiveness, source credibility, and celebrity-product congruence.

Literature Review

Social Media Usage

In less than three years, social media has become the most popular activity on the Internet. By the end of 2008, social networking sites like Facebook, Twitter, and MySpace surpassed email in terms of reach (Ostrow, 2009). Boyd and Ellison (2007) define social networking sites (SNS) as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share connection, and (3) view and transverse their list of connection and those made by others within the system” (pg. 2). SNS usage also increased from 10% of all U.S. households belonging to at least one SNS in 2007 (Lewis, 2007) to over 35% by the end of 2008 (Lenhart, 2009). This is good news for those marketing and advertising practitioners seeking to use social media as a means of communicating with consumers. As mentioned, social networking sites have been praised for their instant access to athletes. Social media gives athletes a platform where they can talk (or type) in their own unedited words and connect directly to their fan base (Corazza, 2009).

A Uses and Gratifications (U&G) approach to social media examines what users do with media, instead of what media does to users (Katz, 1959). U&G literature implies individuals use media to gratify their needs and wants (Katz, Blumler, and Gurevitch, 1973; Rubin, 1983). U&G also operates under the basic assumption that individuals’ communication choices are purposive

and goal-directed (Katz, Blumler, and Gurevitch, 1974). For example, previous research reveals consumers will listen to the radio primarily for entertainment, but will do so for other reasons like habit, pass time, and escape (Pompper, Kinnally, and McClung, 2005). Gangadharbatla (2009) identified six reasons users will adopt social media: desire to belong, desire to communicate, entertainment, desire to seek information, satisfy commercial needs, and self-expression.

U&G literature suggests media can serve functions like “connecting people...with different kinds of others (self, family friends, etc),” (Katz et al., 1974, pg. 63). This was confirmed by Raacke and Bonds-Raacke (2008), who revealed college students use SNS to make new friends and locate old ones. The desire to stay in touch and make new friends is based on a basic need to belong (Gangadharbatla, 2009). In addition, the desire to belong results in increased communication and SNS fills the gap by providing additional access points to stay in touch with others (Gangadharbatla, 2009). This is evident in how athletes and fans use social media. Athletes want to stay in touch with their fans and fans want to be a part of the athlete’s exclusive world.

Papacharissi and Rubin (2000) claim individuals use the Internet to communicate with others as an alternative to face-to-face contact. Social media is the ideal ground for this form of communication. A football fan living in Tulsa is not likely to run into his favorite player from the New York Jets, but he can “follow” his favorite athlete on Twitter and have a direct line of communication to that athlete. Chances are fans and athletes are engaging in this behavior because they find it entertaining. Participating in social media is a choice.

One important factor that surfaces with computer-mediated communication is the interactivity feature. Liu and Shrum (2002) defined interactivity as “the degree to which two or

more communication parties can act on each other, on the communication medium, and on the messages and the degree to which such influences are synchronized” (pg. 54). They proposed three dimensions of interactivity: active control, two-way communication, and synchronicity. Active control describes the user’s ability to voluntarily participate in and influence a communication. Two-way communication corresponds to the bi-directional flow of information, whereas synchronicity refers to the speed of the interaction (Liu and Shrum, 2002). This, of course, includes following their favorite athlete to see what he said about losing to the worst team in the league. Fans want this kind of information and social media allows them to receive it directly from the athlete. “The higher the need for information, the higher the likelihood they adopt SNS” (Gangadharbatla, 2009, pg. 11). If a fan is interested in a particular athlete or sports story, they may turn to various information sources such as Twitter to satisfy this need. The role of information seeking becomes more important when seeking commercial information in an online environment (Eighmey, 1997; Korgoangar and Wolin, 1999). SNSs are often used to satisfy commercial needs (Gangadharbatla, 2009), such as searching for product information through reviews provided by word-of-mouth. “If individuals perceive SNSs as ideal channels for commercial activities, they are more likely to adopt and use SNSs,” (Gangadharbatla, 2009, pg. 11). Athletes using social media to endorse products would fall under commercial activities. Consequently, these endorsements can also be self-promotion. Using SNS for self-expression is similar to the personal identity motive mentioned in U&G literature (Blumler and Katz, 1974; McQuail et al., 1972). One example is basketball player Dwight Howard tweeting about the release of his upcoming album (DwightHoward, 2010). It is evident by the literature that both athletes and fans engage in social media for various reasons. Whether it is seeking information or

promoting products, both parties benefit from the relationships and interactions created through this platform.

Social Media Engagement

Once a user embraces social media, he or she can begin to engage in social media practice. The term *engagement* has several connotations and meanings depending on the circumstance. For example, Merriam-Webster defines 'engagement' as "emotional involvement" or "commitment" ("Engagement, 2011). WordNet, an English database provided by Princeton University, also provides two relevant definitions: (1) "contact by fitting together" and (2) "the act of sharing in the activities of a group" ("WordNet Search," 2011).

In more industry relevant results, the Advertising Research Foundation defined engagement as "turning on a prospect to a brand idea enhanced by the surrounding context" (Weigold and Pulizzi, 2010, p. 5). Marketing research company, Forrester described it as "the level of involvement, interaction, intimacy, and influence that an individual has with a brand over time" (Haven and Vittal, 2008, p. 3). Forrester based its definition on four major components: involvement, interaction, intimacy, and influence (Haven and Vittal, 2008, p. 3). Content marketing firm, Nutlug, focused on definitions of engagement marketing and consumer marketing. The engagement marketing claims engagement "measures the extent to which a consumer has a meaningful brand experience when exposed to commercial advertising, sponsorship, television contact, or other experience" (Wiegold and Pulizzi, 2010, p. 5). The second definition describes consumer engagement as "the ultimate point in which a brand and a consumer connect in order to offer a true experience related to the brand's core values. It is a long term connection that must be enhanced over time," (Wiegold and Pulizzi, 2010, p. 5). Nutlug, which describes itself as the "thought leader in engagement strategy and its

measurement,” combined both definitions to create the concept *consumer engagement*.

“Engagement is creating the heightened state where a customer connects with a brand through a true experience related to shared core values. It is reciprocated by the customer and is a long term connection that must be nurtured over time” (Wiegold and Pulizzi, 2010, p. 5).

While professional athletes can assume the role of a brand, the relationship established on Twitter between athletes and fans is not solely based on marketing purposes. Whether they are asking fans for restaurant suggestions or answering their questions, athletes also use Twitter to connect and interact with fans on a more personal level. For the purpose of this study, engagement will be defined as *the act of purposefully choosing to interact with other users through a social media website and actively participating in the online community*.

Celebrity Endorsement in Traditional Media

Advertisers are often faced with the challenge of making advertisements noticeable and more attractive for consumers. In the past, this has been achieved through celebrity endorsements. Empirical evidence indicates approximately 20-25% of advertisements involve a celebrity as an endorser (Sliburyte, 2009). According to Friedman and Friedman (1979), celebrity endorsers are actors, athletes, or entertainers who are known to the public for their achievements. Using this definition, research on celebrity endorsements applies to athletes, as well. According to Atkin and Block (1983), celebrity endorsers are considered to be “highly dynamic, with attractive and engaging personal qualities,” (pg. 57). Research revealed several characteristics of a celebrity endorser that impact the effectiveness of a message: source credibility, source attractiveness, match-up hypothesis (celebrity-product congruence), and celebrity activation (Kim and Na, 2007; Sliburyte, 2009).

The source attractiveness model claims the effectiveness of a message depends on the similarity, familiarity, and liking of an endorser (Kim and Na, 2007). However, source attractiveness is not limited to only appealing physical features. Source attractiveness also includes non-physical characteristics like athletic ability, charisma, grace, tact, or intelligence (Langmeyer and Shank, 1994). An attractive celebrity has two sources of influence: his or her celebrity status and physical appeal (Kamins, 1990). Various academic studies have revealed physically attractive celebrity endorsers have a substantial impact on the image of the products and brands associated with them. Joseph (1982) concluded physically attractive celebrity endorsers have a positive impact on how consumers think about and assess products. This was later confirmed by Kahle and Homer (1985), who determined that physical attractiveness of celebrities creates a greater response to the brand they promote. It also increases positive evaluations for the brand by the target audience (Kahle and Homer, 1985).

While previous research on source attractiveness provides valid information, studies have only been conducted on traditional media outlets like magazine and television. This raises the question as to how this factor may or may not translate to social media, where the fan does not physically see athletes. In social media, users are represented by a social media account name and a profile avatar or a profile page. This minimizes exposure to the physical appearance of users. This lack of exposure may result in source attractiveness having little to no impact on how one perceives athlete endorsements on Twitter.

H1: Source attractiveness will not impact attitude towards athlete endorsements on Twitter.

Source credibility is also a key factor, because a credible source can influence opinions and consumer behavior through the internalization process (Kelman, 1961). The source credibility model suggests the effectiveness of a message depends on the level of expertise and

trustworthiness of an endorser (Kim and Na, 2007). As defined by Lafferty and Goldsmith (1999), credibility is the “extent to which the source is perceived as possessing expertise relevant to the communication topic and can be trusted to give an objective opinion on the subject,” (pg. 43). In this definition, expertise is obtained through knowledge of the subject and trustworthiness refers to the honesty and believability of a source (McGinnies and Ward, 1980). Some authors argue perceived expertise of a celebrity endorser can affect purchase decision more than source attractiveness or any other factor (Ohanian, 1990).

H2a: High source expertise will increase attitude towards athlete endorsements on Twitter.

H2b: Low source expertise will decrease attitude towards athlete endorsements on Twitter.

H2c: High source trustworthiness will increase attitude towards athlete endorsements on Twitter.

H2d: Low source trustworthiness will decrease attitude towards athlete endorsements on Twitter.

Due to the conversational nature of social media, fans may perceive endorsements as more credible and truthful than advertisements in traditional media. “Social technologies have revved up that word-of-mouth dynamic, increasing the influence of regular people while diluting the value of traditional marketing,” (Li and Bernoff, 2008, pg. 102). If word-of-mouth through social media increases the influence of regular people, then athletes should also see the same effect with their endorsements. Some athletes have even kept their endorsement efforts strictly to social media. For example, instead of appearing in a television commercial, NBA player Kevin Durant pushes his Nike KDs through his website and Twitter account (KDTrey5, 2010). Word-of-mouth endorsements are also more personal, which means fans may place more value on an athlete’s endorsements. This should also be the case if the endorsed product falls into the

athlete's realm of expertise. In the Kevin Durant example, he is pushing his own line of basketball shoes. As a professional basketball player, a consumer can assume Durant is well-versed in what makes a good basketball shoe.

In this example, Durant's role as a basketball player matches with the product he is endorsing – basketball shoes. Kamin's (1990) match-up hypothesis proposes endorsers are more effective when there is a corresponding relationship between the endorser and the product. In their research, Kim and Na (2007) discovered credibility and attractiveness are important when there is a congruent relationship between the athlete endorser and the endorsed product. On the other hand, only attractiveness proved to be more important than credibility when the fit between the athlete endorser and the endorsed product was incongruent. Participants had more favorable attitudes toward the endorsed product when the athlete endorser was congruent with the endorsed product.

Because social media eliminates traditional media as the middleman, athletes have the freedom to promote whatever and whenever they want. This includes non-sponsored products and services, as well. For example, football player Chad "Ochocinco" Johnson proudly displayed his new collection of "game day" earrings from Claire's Boutique (Ochocinco, 2010). Claire's Boutique is a store targeted toward teenage girls, so Johnson does not "match up" with this endorsement, but does that make it any less effective?

Social media allows athletes to promote sponsored and non-sponsored products and services. Non-sponsored messages are more likely to be personal, as seen by TJ Ford promoting the masseuse he frequents when he is in Houston (TJ_Ford, 2010). These messages are likely to be less congruent than a product he is paid to endorse.

H3a: High athlete-product congruence will increase attitude towards athlete endorsements on Twitter.

H3b: Low athlete-product congruence will decrease attitude towards athlete endorsements on Twitter.

H4a: Personal endorsements will have a positive impact on attitude towards athlete endorsements on Twitter.

H4b: Paid endorsements will have a negative impact on attitude towards athlete endorsements on Twitter.

Social Cognitive Theory/Self-Efficacy

As identified by LaRose and Eastin (2004), prospective gratification measures are also consistent with a view of media derived from Bandura's (1986, 1989) Social Cognitive Theory (SCT). SCT provides a theoretical explanation for the observed (Papacharissi & Rubin, 2000) relationship between media gratifications and media usage. SCT is rooted in Social Learning Theory (Bandura, 1977) as a theory of media effects. Social Learning Theory (SLT) explains that learning occurs within a social context. People learn from one another using such methods as observational learning, imitation, and modeling. The theory of media effects suggests a similar idea in which a particular 'effect' is the result of exposure to a certain type of media content (Gauntlett, 2002). As Bandura wrote, "A vast amount of information about human values, styles of thinking, and behavior patterns is gained from the extensive modeling in the symbolic environment of mass media" (Bandura, 2001, p. 271). Using mass media to form ideas and behavior patterns is a form of observational learning. "In observational learning a single model can transmit new ways of thinking and behaving simultaneously to countless people in widely dispersed locales" (Bandura, 2001, p. 271). With the Internet and social media, the potential

reach and influence of one model is greater than ever. Daily routines limit people's exposure to the larger physical and social environment. Day after day, they work in the same setting, visit the same places, and spend time with the same set of friends and colleagues. Therefore, in order to understand what they do not experience directly, people are greatly influenced by "vicarious experiences" (p. 271) or what they see, hear, or read (Bandura, 2001). In turn, people act on their images of reality (Bandura, 2001).

In his book *Public Opinion* (1922), Walter Lippmann addresses a similar concept, which he labeled "pseudo-environment" (p. 21). Like Bandura, Lippmann also believed the world was too large for one individual to comprehend. "The world that we have to deal with politically is out of reach, out of sight, out of mind. It has to be explored, reported, and imagined" (Lippman, 1922, p. 24). Therefore, Lippman's concept of the pseudo-environment refers to the idea that a person bases his or her understanding of social reality on the experiences of others as portrayed by the media or by individuals themselves through pictures or stories (Lippmann, 1922). The pseudo-environment is a hybrid of direct, real-world experiences and observations of people and situations. As Lippmann (1922) observed, an individual "is learning to see with his mind vast portions of the world that he could never see, touch, smell, hear or remember. Gradually he makes for himself a trustworthy picture inside his head of the world beyond his reach" (p. 24).

A parallel can be drawn between Lippmann's idea of the "pictures in our heads" and Bandura's SCT. Both researchers believed that through observations, people form thoughts, ideas, values, and human behavior. And, much like Bandura, Lippmann (1922) believed the "pictures in our heads" (p. 6) will drive human behavior.

"We shall assume that what each man does is based not on direct and certain knowledge, but on pictures made by himself or given to him. If his atlas tells him that the world is flat he will not sail near what he believes to be the edge of our planet for fear of falling off.

If his maps include a fountain of eternal youth, a Ponce de Leon will go in quest of it...The way in which the world is imagined determines at any particular moment what men will do. It does not determine what they will achieve. It determines their effort, their feelings, their hopes, not their accomplishments and results.” (Lippmann, 1991, p. 21)

For both Bandura (2001) and Lippmann (1922), the media plays a large role in creating these pseudo-environments or human behaviors. Consequently, the more a person’s understanding of reality depends on the media’s symbolic environment, the greater its social impact (Ball-Rokeach and DeFleur, 1976). While much of their research focused on traditional media, the same can be applied to the Internet and social media. Social media sites enable users to follow and connect with their favorite athletes. Because fans typically do not have the luxury of achieving athletic stardom, their understanding of professional sports and life as a professional athlete is constructed through what they see and read on websites like Twitter. This could be from up-to-the-minute updates on the latest NCAA investigation or updates from their favorite athlete during a long, multi-game road trip. With its link to SCT as a media effects theory, one could assume that what athletes post on their Twitter accounts can influence the decisions and behaviors of their “followers” or fans. Based on this assumption, if an athlete endorses a particular product on his Twitter account, it may influence a fan to purchase the same product.

However, SCT can be applied as a broader theory of human behavior in regards to media attendance (LaRose and Eastin, 2004) and usage. SCT suggests there is a shared link between individuals, their behavior, and their environment. From a SCT perspective, behavior is an observable act and the execution of behavior is largely determined by the expected outcomes of behavior. These are expectations formed through direct experience or influenced by vicarious reinforcement observed through others (LaRose and Eastin, 2004). A consumer may not be familiar with a product until he sees it mentioned by his favorite athlete. With no personal

knowledge of the product, what the consumer knows is what he learns from the athlete endorser. This will lead the consumer to form expectations about the product.

Engaging in social media is clearly a media consumption behavior. Media usage, such as engaging in social media, can be determined by the expected outcomes that follow from consumption. LaRose and Eastin (2004) believe SCT extends on previous U&G research. U&G research focuses on needs and gratifications, whereas SCT proposes expected outcomes and behavioral incentives. Consequently, expected positive outcomes of social media exposure should cause further exposure and usage. A person's past experience with social media is an important part of the foundation in establishing their current expectations. For example, if a consumer has a positive, enjoyable experience with Twitter, he is more likely to continuing using Twitter. As a result, current expectations about outcomes of behavior are most useful in determining behavior (LaRose and Eastin, 2004). Moreover, from a SCT perspective, these expectations are formed through various methods such as vicarious learning by observing others and self-efficacy.

Self-Efficacy

According to Bandura (1986), self efficacy is belief in one's ability to organize and execute a particular course of action. For the purpose of this research, the course of action is engagement and participation in social media. Because social media websites are Internet-based platforms, they require similar skills and share related characteristics and challenges. Therefore, self-efficacy is particularly relevant for novice users who have not yet mastered the skills needed to utilize Twitter. However, in order to achieve self-efficacy, users must first overcome several barriers of entry and what Eastin and LaRose (2000) call the "digital divide" (p. 1).

Previous research has typically defined the digital divide in terms of race and class discrimination, focusing mainly on unequal access to computers and the Internet (Eastin and LaRose, 2000). According to one of Twitter's lead engineers, only 20% of its traffic comes through the Twitter website. The remaining 80% comes from third-party programs on smartphones or computers (Arthur, 2009). Therefore, access to smartphones should also be considered. However, socio-economic and racial barriers aside, all new Internet users face similar psychological barriers, as well (Eastin and LaRose, 2000). Novice Internet users tend to be less comfortable using the Internet. They are also less satisfied with their Internet-related skills and are more likely to encounter stress-inducing situations (GVU, 1999, q11, q101, q102). According to Katz and Aspden (1996), the idea that computers are too complicated and the feeling of uncertainty about how to get started are just as important as barriers like cost and lack of access.

The idea of self-efficacy suggests that as social media users become more self-efficacious, their expectations of obtaining specific outcomes, like connecting with their favorite athlete, will also increase. As a result, their experience will encourage further usage. Research suggests prior experience with the Internet precedes Internet self-efficacy (Eastin and LaRose, 2000). Eastin and LaRose (2000) believe this a result of enactive mastery (Bandura, 1986), which implies Internet users will gradually master complex tasks. Users who have little confidence in their ability to use social media sites and are either dissatisfied with their ability to perform the requisite skills or are uncomfortable using social media will tend to have lower self-efficacy. Moreover, users with low self-efficacy are less likely to perform related behaviors in the future (Bandura, 1982). This means they would be less likely to utilize and engage in Twitter-related behaviors and activities than those with higher degrees of self-efficacy. For

example, the first barrier between a user and social media is computer usage. Because computers require considerable skill and training to operate, they can be a complex and troublesome technology for some users (Compeau and Higgins, 1995). Before users can adopt social media, they must also embrace the Internet. As previously mentioned, Twitter is an Internet-based platform, meaning it would cease to exist without the Internet. However, using the Internet requires additional skills that new users may find discouraging. Not only must users be able to establish and maintain a stable Internet connection, they must also learn how to navigate the Internet to find the Twitter website and create an account. In order to create an account, users must also have a working email address. Moreover, as noted by one of Twitter's engineers, many users are accessing Twitter from smartphones or third-party platforms (Arthur, 2009). This means new Twitter users must also know how to access and use the Internet on a smartphone.

From a SCT perspective, self-efficacy is a form of self-evaluation (Bandura, 1982; 1997). Self-efficacy has the ability to influence decisions about what behaviors to perform, the amount of effort and energy to exert when dealing with obstacles and challenges. Eastin and LaRose (2000) clarify that self-efficacy is not a measure of skill, but instead a reflection of what users believe they can do with the skills they possess. As suggested, previous experience precedes self-efficacy. Thus, the more exposure to Twitter and other social media websites, the more self-efficacious a user will become. In turn, the more self-efficacious, the more likely the user will continue engaging and participating in social media.

This is applicable because companies paying for endorsements need people to continue using Twitter. The more people use Twitter, the more exposure they will have to both paid and nonpaid endorsements. This study focuses on attitude towards athlete endorsements on Twitter, but in order to have an attitude toward these endorsements, whether positive or negative, one

must be exposed to said endorsements. Consequently, in order to be exposed to any type of endorsement on Twitter, the consumer must use social media site enough to be familiar with them.

H5a: High self-efficacy on Twitter will predict a positive attitude towards athlete endorsements on Twitter.

H5b: Low self-efficacy on Twitter will predict a negative attitude towards athlete endorsements on Twitter.

Expectancy Value Theory

Fishbein's (1975) Expectancy Value Theory (EVT) can be applied when addressing the effectiveness of athlete endorsements. The EVT suggests an individual's attitudes are developed and modified based on his or her assessment about beliefs and values (Fishbein and Ajzen, 1975). As a theoretical perspective, EVT focuses on four major components: belief, attitude, intentions, and behavior. Fishbein and Ajzen (1975) define a belief as a perception of how an attribute is related to an attitude object. From this perspective, attitude is defined as "an evaluative integration of cognitions and affects experienced in relation to an object. "Attitudes are the evaluative judgments that integrate and summarize the cognitive/affective reactions," (Crano and Prislin, 2006, p. 347). Because these evaluative judgments vary in strength, they have the capacity to influence persistence, resistance, and attitude-behavior (Holland et al., 2002; Petty et al. 2004). EVT suggests that an individual's attitude toward an object reflects how that person evaluated the object (Fishbein and Ajzen, 1975). As a result, the set of beliefs that an individual associates with an object is also related to his or her attitude toward the object. The individual's attitude toward the object is also related to the set of intentions that the person has regarding the performance of various behaviors related to the object (Fishbein and Ajzen, 1975).

EVT also suggests that each behavioral intention is related to a corresponding behavior (Fishbein and Azjen, 1974). Therefore, if a consumer uses Twitter, then there is a corresponding behavior to follow, such as continued use or interaction with athlete endorsers.

The relationship between an intention and the resulting behavior is affected by several contributing factors. These include the specificity of the intention in regards to the behavior, the proximity in time with respect to intention and behavior, the ability of the person to carry out the intention, and unforeseen or intervening circumstances (Fishbein and Azjen, 1975). In their studies, Fishbein and Azjen distinguished the difference between single-act and multiple-act behavior. They found that there is no necessary relationship between attitude toward an object and a single intention in regards to the object (Fishbein, 1967). Rather, Fishbein and Azjen (1974) suggest that attitude toward an object should instead be related to a multiple-act criterion for behavior. Their findings suggest that when a message influences attitude toward an object, a multiple-act criterion for behavior will detect how the message influenced the resulting behavior. They also determined that a single behavior in the pattern will not necessarily be predicted by attitude toward the object (Fishbein and Azjen, 1974).

Within EVT, an individual's set of beliefs about an object is related to his or her attitude toward the object. Attitude toward the object is also related to the set of behavioral intentions (Fishbein and Azjen, 1975). Previous research has determined that an intention is one of the best predictors for a single corresponding behavior (Fishbein and Azjen, 1975). According to the theory of behavioral intentions, behavioral intention is controlled by two factors: (1) the individual's attitude toward performing the particular behavior and (2) the normative component. The normative component is the set of beliefs an individual has in regards to how others expect the person to behave with respect to the object (Fishbein and Azjen, 1975). Steinfatt and Infante

(1976) also suggest that if the contributing factors previously mentioned (specificity, time, ability, unforeseen events) are controlled, there is a strong correlation between intention and its corresponding behavior.

With respect to this research, EVT users will respond to new information about an item or action by first developing a corresponding belief. There are two applicable situations. First, social media users are faced with the action of engaging in social media. The second suggests a more traditional advertising approach in which a consumer responds to an endorsement. The latter scenario would involve an athlete posting either a paid or nonpaid endorsement on his Twitter account. The athlete's fan would see the endorsement and begin forming a belief about the athlete or product. The second stage of EVT suggests users will assign values to each attribute upon which a belief is based. The attributes relevant to this research are those related to celebrity endorsements. A literature review of studies pertaining to celebrity and athlete endorsements revealed several recurring attributes or concepts. The attributes relevant to this research are discussed in greater detail later, but include source attractiveness, source credibility, trustworthiness, source activation and celebrity-product congruence. In the final stage of EVT, users create or modify their expectations after calculating beliefs and values. For example, a basketball fan on Twitter may alter his level of social media activity based on his beliefs and attitude toward the website. If he has a poor experience, it may alter his behavior negatively. Conversely, a positive experience could cause an increase in his Twitter usage. A second example would involve a fan's reaction to an athlete's post and product endorsement. A fan's attitude toward a particular endorsed product might change if his attitude about the athlete changes. This attitude change could be affected by several possible situations such as the athlete engaging in poor behavior on or off the field or if the fan finds the athlete's posts erratic,

troublesome, or annoying. When using endorsements, the ideal situation is to create purchase intention. However, when using social media to endorse products, there are several factors that can influence a consumer's attitude and purchase intention.

Persuasion Knowledge Model

Despite diminished effectiveness, advertisements continue to reign as the favored method of promotion (Sliburyte, 2009). One explanation for diminished effectiveness can be attributed to the Persuasion Knowledge Model (PKM). PKM claims consumers learn about persuasion through various outlets, like firsthand experiences in social interactions with friends and family or participating in conversations about how consumers' thoughts and behaviors can be influenced (Friestad and Wright, 1994). As a consequence, the effects of actions performed by persuasion agents on consumers' attitudes and behavior will also change. This is because a consumer's persuasion knowledge shapes how they respond as "persuasion targets," (Friestad and Wright, 1994). Using PKM, there are three knowledge structures that interact to determine the outcomes of persuasion attempts. These are: (1) persuasion knowledge; (2) agent knowledge, which consists of beliefs about the traits, competencies, and goals of the persuasion agent; and (3) topic knowledge, which consists of beliefs about the topic of the message (Friestad & Wright, 1994). According to Friestad and Wright (1994), "consumers' persuasion coping knowledge enables them to recognize, analyze, interpret, evaluate, and remember persuasion attempts and to select and execute coping tactics believed to be effective and appropriate."

Consumer Skepticism

One way consumers cope with persuasion attempts is by exhibiting consumer skepticism (Hardesty, Carlson and Bearden, 2002). In a survey conducted by Bailey (2007), several respondents indicated some degree of skepticism regarding celebrity endorsements. The

respondents indicated celebrity endorsers would have little impact on consumers because they, and other consumers, do not buy products simply because celebrities endorse them. Focus group participants in two other studies shared similar sentiments. They expressed doubt that celebrities used, or even liked, the products they endorsed. They also indicated that celebrities took part in endorsements because they were paid for them (Tripp, Jensen and Carlson, 1994). Despite participants demonstrating consumer skepticism, there was no evidence it diminished consumers' attitudes and perceptions.

Advertisers are well aware of consumer skepticism and have tried to manipulate it to their advantage by openly addressing consumers' concerns. Bailey (2007) recalled two Sprite commercials focusing on this issue. The first commercial was from the 1990s and featured NBA basketball player Grant Hill. Every time Hill would mention something about Sprite, the sound of a cash register could be heard and money would pile up on the screen. The second commercial featured NBA basketball star Kobe Bryant. In the advertisement, Bryant openly questions his role as an athlete endorser. He asks, "If I was a window washer, an architect, security guard, or a farmer, instead of a famous basketball player, would you care what I drink? If Sprite did not taste the same, would I be doing this commercial? What do you think?"

The Persuasion Knowledge Model will be utilized to determine if social media users are predisposed to persuasion attempts by athletes. Because users consciously make the decision to "like" something on Facebook or "follow" an athlete on Twitter, social media could be classified as high engagement. Consumers with high engagement actively search and follow their favorite athletes, celebrities or brands and it is possible they go into the persuasion episode knowing what type of information or persuasion attempts they may be exposed to. Conversely, there is also the possibility that for some habitual users of social media, engagement may decrease over time.

Once the user has established a profile or presence on the social media site, he or she may sink into a routine resulting in less engagement on the site. The PKM can be applied to determine the effectiveness of sponsored versus personal messages delivered by athletes. It is possible consumers may have built up a tolerance to sponsored messages. In that case, personal messages would carry more influence, even if the product is not congruent with the celebrity.

H6a: High consumer skepticism will predict a negative attitude towards athlete endorsements on Twitter.

H6b: Low consumer skepticism will predict a positive attitude towards athlete endorsements on Twitter.

Limited Capacity Model

The Limited Capacity Model (LCM) assumes that individuals have a limited capacity to process information. When consuming stimuli, like media messages, there is a set amount of mental resource that can be used to pay attention (Lang, 2000). Initially, LCM was developed to investigate how people process television messages (Lang, 1992; 1995; Lang and Basil, 1998). The model makes two major assumptions: (1) people are information processors and (2) a person's ability to process information is limited (Lang, 2000). When consuming media messages, people have a limited amount of mental resource to process information (Lang, 2000). LCM proposes three steps in information process: encoding, storage, and selection (Lang, 2000). They are used to receive a stimulus, analyze it, and place it for retrieval at a later date.

LCM is being utilized in this research to investigate whether information overload can impact the effectiveness of athlete endorsements on Twitter. In 2009, only 5% of Twitter users accounted for 75% of all activity (Cheng and Evans, 2009). Many celebrities and athletes tend to fall into this 5% (Cheng and Evans, 2009). A study revealed that 32% of all tweets made by the

most active Twitter users were generated by machine bots that posted more than 150 tweets per day (Cheng and Evans, 2009). Accounts operated by machine bots were typically by sources such as news services, weather services, hotels offering deals, the top news within Digg, games, tags within del.icio.us and financial aggregators. These active bots account for one-quarter of all tweets (Cheng and Evans, 2009). Moreover, 88% of the most active Twitter users have never missed a day without making at least one update, while another 2.1% have only been inactive for one day. Also, 48% have more than 100 followers, compared with 6.3% for overall Twitter users.

Therefore, a Twitter user can follow a combination of people and be inundated with massive amounts of information. If a user fails to check his account over a span of several hours, or even days, he could easily have missed hundreds of tweets. If this were to occur, it is unlikely the user will scroll through and read hundreds of individual messages. The LCM is being utilized in this research to determine if tweet overload can negatively impact athlete endorsements on Twitter. This could be done by either missing a particular tweet that was posted hours earlier or scrolling right over it without taking notice.

H7a: High information overload on Twitter will predict a negative attitude towards athlete endorsements on Twitter.

H7b: Low information overload on Twitter will predict a positive attitude towards athlete endorsements on Twitter.

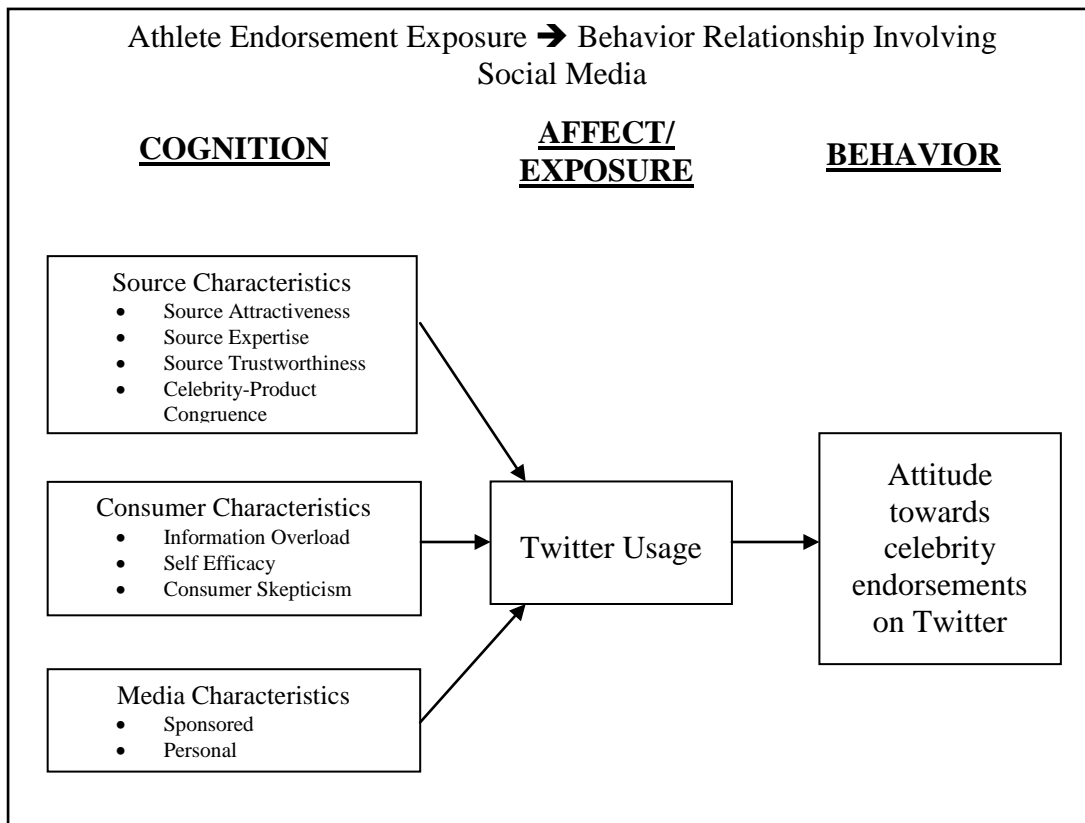
Proposed Model

Athlete Endorsement Exposure → Behavior

The effectiveness of athlete endorsements can be analyzed as part of a three-step process. The relationship between steps one and two is grounded in uses and gratifications theory and

social media adoption, whereas the second portion of the model is attributed to the attitude→behavior relationship. The proposed model is based on the three key components as identified by Fazio (1986): cognitive, affect/exposure, and behavior. “The affective and cognitive components of an attitude center around a consumer’s feelings, beliefs, and ultimate evaluation of an object, whereas the behavioral component accounts for the action, if any, the consumer takes,” (Daugherty, Eastin, & Bright, 2008, pg 18). However, in order to move from cognitive to affect/exposure, one must make the conscious effort to participate in social media.

Figure 1. Proposed Model



The cognitive level of the model focuses on the different aspects of the message. First, the athlete must make the effort to create and post content for fans to consume. When the endorsement is created, various factors impacting celebrity endorsements are integrated and become part of the message. As identified earlier, these characteristics are: source credibility,

source attractiveness, celebrity-product congruence, and celebrity activation. While the athlete has already demonstrated a commitment to social media by posting his endorsement, fans (consumers) are deciding on their personal level of involvement social media. Fans can show high engagement with the source using social media in several ways. For example, they can choose to “follow” the athlete on Twitter, “like” the athlete’s profile page on Facebook, or integrate an athlete’s blog into an RSS feed. By doing so, they are opting to participate in an interactive relationship between athlete and fan. This also means they are making the decision to receive whatever messages the athlete decides to post, including endorsements. Consumers demonstrating low engagement would not opt-in to receive messages or updates. Moreover, by choosing not to receive direct messages from the athlete, the consumer has to make an effort to search for content posted by the athlete. Low engagement, therefore, decreases the chances of being exposed to the athlete’s endorsements. The last component of the cognitive stage categorizes the types of endorsements. In observing social media accounts of athletes, two types of endorsement messages are prevalent: sponsored and personal. Sponsored messages are those that reflect a monetary-based or incentive relationship between the athlete and the brand or product. LeBron James tweeting about Nike Lunarmx+ sneakers would be an example of a sponsored endorsement. James’ signed a \$90 million endorsement deal with Nike in 2003 (Collins, 2003). On the other hand, TJ Ford’s post about the masseuse he visits when he is in Houston is more personal.

As noted by Gangadharbatla (2009), users make the choice to participate in social media for different reasons, including to fill a desire to belong, desire to communicate, entertainment, desire to seek information, satisfy commercial needs, and self-expression. An athlete posting messages to Twitter or Facebook could be seeking to fulfill any of these needs. Perhaps he wants

to communicate with fans while he is waiting to board a plane for an away game. In his conversations with fans, maybe he is seeking information from them about certain topics, like the latest videogame or movie release. Through this entire transaction, he is demonstrating some form of self-expression by making his comments and replies public for everyone to read. The same process applies to fans. They could be responding to an athlete's post, because it makes them feel included in the exclusive world of professional athletes. Perhaps they want information about the athlete's latest shoe line or rap song. Social media is choice. And, in order to move through the model, the consumer needs to make the choice to participate in this environment.

Moving from steps two to three depends on the formation of positive or negative attitudes toward social media. This is the portion based on the attitude→behavior relationship. According to Myers (1998), the attitude→behavior relationship ranges from nonexistent to very strong and an attitude about an object can determine the person's interactions with that object. At this point, the athlete has already created and posted an endorsement on a social media site. From here, it is up to the consumer on whether or not they want to be exposed to the message. This is demonstrated by their level of social media usage. "The act of consuming such content results from a consumer's attitude toward such an activity and the technological components with which he or she interacts to obtain such content," (Daugherty et al., 2008, pgs.18-19). If the consumer has a negative attitude about social media, then they are not likely to participate in social media or be exposed to an athlete's endorsement.

The attitude→behavior relationship suggests if a consumer has a positive attitude toward social media, his or her attitude toward the athlete's endorsement should also be positive. In turn, this would also create a positive attitude toward the brand or product and increase purchase intention. However, this process is complicated by the Persuasion Knowledge Model. When

the consumer arrives at stage three, they have already consumed the endorsement and are now reacting to it. Sliburyte (2009) claims the effectiveness of endorsements have diminished due to the Persuasion Knowledge Model (PKM). PKM claims consumers learn about persuasion through various outlets, like firsthand experiences in social interactions with friends and family or participating in conversations about how consumers' thoughts and behaviors can be influenced (Friestad and Wright, 1994). As a consequence, the effects of actions performed by persuasion agents on consumers' attitudes and behavior will also change. This is because a consumer's persuasion knowledge shapes how they respond as "persuasion targets," (Friestad and Wright, 1994). While the attitude→behavior relationship suggests positive attitudes lead to positive behaviors, the persuasion knowledge model leaves open the possibility that the endorsement could be ineffective. Therefore, a consumer could be highly engaged with an athlete and have a positive attitude toward social media, but still not exhibit the desired behavior. The model comes to a full circle when the desired behavior is continued media usage. Even if the message was ineffective, if the consumer had a positive experience with social media, they are likely to continue using it. As the cycle repeats, continued usage means more opportunities for exposure to endorsements.

Methodology: Pilot Study

Prior to commencing this study, a pilot study was conducted to test the validity and reliability of the survey instruments to be used in this research. The pilot study also sought to determine what types of celebrities (e.g. actors, athletes, models, etc.) are most followed on Twitter. Respondents were also asked about their attitudes towards celebrity endorsements on Twitter, in general. Among the 130 respondents who participated in the pilot study, 67 (51.5%) indicated that they follow actors and/or actresses on Twitter, while 47 (36.2%) said they follow

athletes. Based on these results and along with personal observation of various celebrity Twitter accounts, it was determined that athlete endorsements warranted closer observation.

Design

A 109-item online questionnaire was fielded among students from a major university in the Southwestern region of the United States as well as social media websites (e.g., Facebook, LinkedIn, and Twitter). In addition to information regarding attitude towards celebrity endorsements on Twitter, demographic data was gathered from all participants. Data was collected for a three-week period (Nov 15th – Dec 6th, 2011).

Pilot Study Sample

Study participants were undergraduate students who were enrolled in a variety of courses, including digital media, advertising, and communication sciences. Students were informed that participation in the study was completely voluntary and were offered extra credit for completing the survey. To supplement the student sample, a snowball technique was used to recruit respondents from social media websites such as Facebook, Twitter, and LinkedIn. Participants were screened for gender and media usage.

The final sample (N = 130) was comprised of undergraduate and graduate students who have Twitter accounts and follow celebrities. Of the 130 respondents, 100 (76.9%) indicated they were between the ages of 19-22. Respondents were predominantly Caucasian (79.2%), followed by Hispanic-Americans (8.5%), African-Americans (4.6%), Multiracial (3.8%), Asian-Americans (0.8%), International (0.8%), and 2.3% preferred not to answer. Of those who responded, 66.2% had some college, but no degree. Only 1.5% responded that they had some graduate school experience or 2.3% indicated that they had already received a graduate degree. Moreover, 17.7% did report that they had at least a bachelor's degree. While this sample is not

representative of American consumers, it is consistent with the demographics of the population on Twitter. Studies show that 45% of online young adults between the ages of 18-34 use Twitter (Quantcast, 2011). According to Quantcast (2011), 67% of Twitter users are Caucasian and nearly 51% have at least some college education. In addition, females are the most active users of Twitter (Nielsen, 2011) and account for 57% of Twitter users (Solis, 2010).

Measures

The questionnaire consists of six major sections that assess: (1) attitude toward celebrity endorsements on Twitter, (2) attitude towards testimonial endorsements on Twitter, (3) perceived expertise, (4) perceived trust, (5) involvement, and (6) endorsement relevance. The measure of attitude towards celebrity endorsements uses an established six-item, four-point Likert-type scale from Henthorne, LaTour, and Nataraajan (1993) (1 = No, definitely not, 4 = Yes, definitely). Participants were asked to select the option that best represented how they felt about celebrity endorsements on Twitter (e.g. good, interesting, informative, appropriate, easy to understand, and objective). The measures for perceived trust and expertise were created from Ohanian's (1990) fifteen-item, seven-point semantic differential scale to evaluate celebrity endorsers. Perceived trust consisted of the following anchors: undependable/dependable, dishonest/honest, and unreliable/reliable. The measure for perceived expertise included: not an expert/expert, inexperienced/experienced, unknowledgeable/knowledgeable, unqualified/qualified, and unskilled/skilled. The measure of involvement uses an established three-item, seven-point semantic differential scale (Swinyard, 1993) (uninvolved/involved, not absorbed/absorbed, and (not stimulated/stimulated). The measure of endorsement relevance consists of an eight-item Likert-type scale from Andrews and Durvasula (1991) that includes statements such as, "Celebrity endorsement tweets might be important to me," "Celebrity endorsement tweets might

be worth remembering,” and “Celebrity endorsement tweets might be relevant to my needs.” The measure for attitude towards celebrity testimonial tweets used an established four-item, seven-point semantic differential scale from Feick and Higgle (1992) (very ineffective/very effective, weak/strong, not at all persuasive/very persuasive, and very ineffective for getting people to try the product or service/very effective for getting people to try the product or service).

The questionnaire also features an open-ended question that asks respondents to list a celebrity endorser they follow on Twitter and what product or service he or she was endorsing. It also collects information about the number of minutes they spend on other social media websites, the number of social media sites to which they belong, how many followers they have on Twitter, how many people they follow on Twitter, and which types of accounts (e.g. celebrity, athlete, politician, brand, or news organization) they follow on Twitter. Finally, the survey concludes with demographic questions regarding the respondent’s age, gender, and ethnicity. Respondents took approximately 25 minutes to complete the entire survey. To maintain anonymity, the questionnaires do not collect the respondents’ names.

Results

Data Analysis

The reliability assessment of all scales uses Cronbach's alpha, and all exceed the generally accepted guideline of .70 (Hair et al., 1998). Table 1 summarizes the mean scores, variances, and reliability indices.

Table 1: Mean, Standard Deviation, and Cronbach’s Alpha Coefficients for Scales

Measures	Mean	SD	Reliability
Perceived Expertise	4.51	1.23	.938
Perceived Trust	4.62	1.17	.873
Endorsement Relevance	3.49	1.25	.955
Involvement	3.75	1.44	.906
Attitude towards Celebrity Endorsement	2.34	.53	.810
Attitude towards Celebrity Testimonial	4.23	1.31	.917

Because this is an exploratory study, only descriptive statistics were used. This was intended to provide the researchers with a general idea of how respondents react to the celebrity endorsements they encounter on Twitter. According to the results, it appears that respondents do not feel more involved when following celebrities on Twitter. The mean for the involvement measure equaled 3.75 (SD = 1.44). Additionally, respondents indicated that they do not feel the celebrity endorsements they encounter on Twitter are relevant to their personal needs or interests. The relevance measure (M = 3.49, SD = 1.25) indicates a low-moderate response to the relevance of celebrity endorsements on Twitter. The attitude towards celebrity endorsements measure (M = 2.34, SD = .53) indicates that respondents do have a moderately positive attitude toward celebrity endorsements they encounter on Twitter.

Two variables were used to measure credibility in celebrity endorsements on Twitter – perceived expertise and trust. While both are key components to credibility, perceived trust (M = 4.62, SD = 1.17) scored higher than perceived expertise (M = 4.51, SD = 1.23). Both scales were measured on seven-point Likert scales. This implies that respondents trust celebrity endorsements on Twitter, but hold slight reservations about the expertise of the celebrity endorser. In comparing the means for the attitude towards celebrity endorsement measure and the attitude towards celebrity testimonial measure, testimonials held a very slight edge. The testimonial measure (M = 4.23, SD = 1.31) was slightly above the scale's midpoint. Attitude towards testimonials was measured using a four-item, seven-point semantic differential scale (e.g., very ineffective testimonial / very effective testimonial, weak advertisement / strong advertisement, not at all persuasive / very persuasive, and very ineffective for getting people like you to try the product or service / very effective for getting people like you to try the product or

service). This indicates that respondents are not completely convinced by testimonials by celebrities, but find them slightly more convincing than paid celebrity endorsements.

Participants indicated having a positive reaction to celebrity endorsements, while also revealing that they perceived celebrity endorsers as both experts and trustworthy. Thus, it was decided that celebrity endorsements warranted a more in-depth investigation. Of those who participated in the pilot study, 47 (36.2%) said they follow athletes. Due to the popularity of athletes on Twitter, along with the frequency with which they post paid endorsements on Twitter, it was decided that the next study would focus primarily on athletes. Moreover, athlete-product congruence was introduced as a concept in the second study. Athlete endorsers have often been the subject of studies focusing on celebrity endorsers and the match-up hypothesis (see Kim and Na, 2007).

Methodology: Study 2

Design

A 123-item online questionnaire was fielded among students from a major university in the Southwestern region of the United States as well as social media websites (e.g., Facebook, LinkedIn, and Twitter). In addition to information regarding attitude towards athlete endorsements on Twitter, demographic data was gathered from all participants. Data was collected for a one-month period (Feb 29th – April 1st, 2012).

Sample

Study participants were undergraduate and graduate students who were enrolled in a variety of courses, including digital media, advertising, public relations and communication sciences. Students were informed that participation in the study was completely voluntary and were offered extra credit for completing the survey. In total, the survey was distributed to 318

undergraduate students. Of those 318 students, 188 completed the survey to result in a 59.1% response rate. To supplement the student sample, a snowball technique was used to recruit respondents from social media websites such as Facebook, Twitter, and LinkedIn. Through both sampling methods, two hundred and twelve respondents completed the survey instrument for a response rate of 90.2%, 51 males (24.1%) and 160 females (75.5%). The respondents' ages ranged from 18-54, with 94.3% of respondents indicating they were between the ages of 18-25. The majority of respondents were Caucasian (81.1%), followed by Hispanic-Americans (10.4%), African-Americans 1.9%, Multiracial (1.9%), and Asian-Americans (0.9%). Two respondents indicated they were of an ethnicity not listed on the instrument and six others preferred not to answer. Respondents were also screened for Twitter usage, as well as if they follow athletes on Twitter. Of the respondents who completed the survey instrument, 151 (71.2%) indicated that they do have a Twitter account. Of those 151 respondents, 47% indicated that they follow athletes on Twitter.

Measures

The questionnaire consists of ten major sections that assess: (1) attitude towards athlete endorsements on Twitter, (2) self-efficacy in regards to Twitter, (3) information overload on Twitter, (4) consumer skepticism towards advertising on Twitter, (5) attitude towards paid endorsements on Twitter, (6) personal (testimonial) endorsements on Twitter, (7) athlete-product congruence, (8) source attractiveness, (9) source expertise, and (10) source trustworthiness.

Attitude towards Athlete Endorsements on Twitter. The measure of attitude towards athlete endorsements uses an established six-item, seven-point Likert-type scale from Henthorne, LaTour, and Nataraajan (1993) (1 = No, definitely not, 7 = Yes, definitely). Participants were

asked to select the option that best represented how they felt about athlete endorsements on Twitter (e.g. good, interesting, informative, appropriate, easy to understand, and objective).

Self Efficacy. Self efficacy was gauged by respondents' experience with Twitter using six items from an eight-item, seven-point, Likert-type scale assessing respondents' beliefs about their Twitter skills and perceived degree of Twitter challenges (Novak, Hoffman and Yung, 2000). Statements included “I am extremely skilled at using Twitter,” “Using Twitter is a good test of my skills,” and “I know how to find what I am looking for on Twitter.”

Information Overload. The measure of information overload uses an established four-item, seven-point Likert scale (Bruner et. al, 2001) that includes statements such as, “I am likely to receive too much information when I am searching for something on Twitter,” “I am frequently overwhelmed by the amount of information available on Twitter,” and “When searching for information on Twitter, I frequently just give up because there is too much to deal with.”

Consumer Skepticism. The measure of consumer skepticism consists of a nine-item Likert scale from Obermiller and Spangenberg (1998) that includes statements such as, “We can depend on getting the truth in most advertising on Twitter,” “I believe advertising on Twitter is informative,” and “In general, advertising on Twitter presents a true picture of the product being advertised.”

Attitude towards Paid Endorsements. Attitude towards paid endorsements was measured using a nine-item, seven-point Likert scale (Bruner, et al., 2001).

Attitude towards Personal Endorsements. The measure for attitude towards athlete testimonial tweets uses an established four-item, seven-point semantic differential scale from Feick and Higgle (1992) (very ineffective/very effective, weak/strong, not at all persuasive/very

persuasive, and very ineffective for getting people to try the product or service/very effective for getting people to try the product or service).

Athlete-Product Congruence. Athlete-product congruence was measured using a three-item, seven-point semantic differential scale from Till and Busler (2000) (do not belong with each other/belong with each other, do not go together/go together, and do not fit together/fit together).

Source Characteristics (Attractiveness, Expertise, Trustworthiness). The measures for source attractiveness and perceived trust and expertise were created from Ohanian's (1990) fifteen-item, seven-point semantic differential scale to evaluate celebrity endorsers. Source attractiveness consisted of the following anchors: unattractive/attractive, not classy/classy, ugly/beautiful, plain/elegant, and not sexy/sexy. Perceived trust consisted of the following anchors: undependable/dependable, dishonest/honest, unreliable/reliable, and untrustworthy/trustworthy. The measure for perceived expertise included: not an expert/expert, inexperienced/experienced, unknowledgeable/knowledgeable, unqualified/qualified, and unskilled/skilled.

The questionnaire also features an open-ended question that asks respondents to list a celebrity endorser they follow on Twitter and what product or service he or she was endorsing. It also collects information about the number of minutes they spend on other social media websites, the number of social media sites to which they belong, how many followers they have on Twitter, how many people they follow on Twitter, and which types of accounts (e.g. celebrity, athlete, politician, brand, or news organization) they follow on Twitter. Finally, the survey concludes with demographic questions regarding the respondent's age, gender, and ethnicity.

Respondents took approximately 25 minutes to complete the entire survey. To maintain anonymity, the questionnaire did not collect the respondents' names.

Results

Data Analysis

The reliability assessment of all scales uses Cronbach's alpha, and all exceed the generally accepted guideline of .70 (Hair et al., 1998). Table 1 summarizes the mean scores, variances, and reliability indices.

Table 2: Mean, Standard Deviation, and Cronbach's Alpha Coefficients for Scales

Independent Measures	Mean	SD	Reliability
Source Attractiveness	4.46	1.18	.933
Source Expertise	4.13	1.20	.988
Source Trustworthiness	4.20	.91	.994
Athlete-Product Congruence	4.11	1.13	.994
Twitter Self Efficacy	3.79	.97	.928
Information Overload	3.32	1.20	.903
Consumer Skepticism	4.25	1.07	.988
Paid Endorsements	3.99	.72	.987
Testimonial Endorsements	4.69	1.35	.993
Dependent Measures			
Attitude towards Athlete Endorsements on Twitter	3.80	.98	.982

The hypotheses were evaluated using correlational analysis. The first hypothesis predicted that source attractiveness will have an impact on attitude towards athlete endorsements on Twitter. Hypothesis 1 was not supported. The results revealed there is a weak, positive correlation between the groups, $r = .29, p < .05$. Hypotheses 2a, b, c, and d focused on the two components of source credibility. Hypotheses 2a predicted that high source expertise will positively impact attitude towards athlete endorsements on Twitter, whereas as 2b predicted low source expertise will decrease attitude towards endorsements on Twitter. Hypotheses 2c and 2d predicted the same effects for source trustworthiness. Hypotheses 2a and 2c were supported.

Results indicate that there is a moderate, positive correlation between source expertise and attitude towards athlete endorsements on Twitter, $r = .35, p < .01$. Hypothesis 2b was also supported with results indicating a weak, positive correlation between the groups, $r = .25, p < .05$.

The third set of hypotheses predicted that the content of the endorsement will have an effect on attitude towards athlete endorsements on Twitter. Hypothesis 3a predicted that high athlete-product congruence will increase attitude to athlete endorsements on Twitter, whereas hypothesis 3b suggest low athlete-product congruence will decrease attitude towards athlete endorsements on Twitter. As hypothesized, there was there was a moderate, positive correlation between the groups, $r = .41, p < .01$. This indicates that as the match-up between the athlete and endorsed product increases, attitude towards athlete endorsements on Twitter also increases. Thus, hypothesis 3a was supported. Hypothesis 4a and 4b focused on paid versus personal endorsements. Hypothesis 4a was not supported. Results indicate that there is no statistically significant correlation between personal endorsements (testimonials) and attitude towards athlete endorsements on Twitter, $r = .23, p > .05$. However, hypothesis 4b was supported. Results revealed that there is a moderate, negative correlation between paid endorsements and attitude towards athlete endorsements on Twitter, $r = -.40, p < .01$.

The fifth set of hypotheses predicted that high self-efficacy on Twitter may predict a positive attitude towards athlete endorsements on Twitter. Hypothesis 5b claims that low self-efficacy will decrease attitude towards athlete endorsements on Twitter. However, neither hypothesis 5a nor 5b were supported. Results revealed that there is not a statistically significant correlation between a respondent's reported self-efficacy on Twitter and their attitude towards athlete endorsements on Twitter, $r = -.16, p > .05$. Similarly, hypotheses 6a and 6b were also not

supported, $r = .17, p > .05$. Therefore, there is not a statistically significant correlation between consumer skepticism and attitude towards athlete endorsements on Twitter. Additionally, hypotheses 7a and 7b were also not supported, $r = -.07, p > .05$. This means that there is not a statistically significant correlation between information overload and attitude towards athlete endorsements on Twitter.

	1	2	3	4	5	6	7	8	9	10
1. Attitude towards athlete endorsements on Twitter	1									
2. Athlete-product congruence	.406**	1								
3. Source attractiveness	.294**	.427*	1							
4. Source expertise	.353**	.454**	.588**	1						
5. Source Trustworthiness	.246*	.251*	.592**	.670**	1					
6. Self-efficacy on Twitter	-.164	.023	.076	.124	.127	1				
7. Information Overload	-.068	-.202	.066	-.073	.026	.095	1			
8. Consumer Skepticism	.172	.203	.172	.294*	.243*	.497**	.016	1		
9. Attitude towards paid endorsements	-.396**	-.049	.043	-.099	-.024	.146	.150	.021	1	
10. Attitude towards personal endorsements	.231	.229	.232*	.167	.133	.103	-.038	.113	.075	1
** . Correlation is significant at the 0.01 level										
* . Correlation is significant at the 0.05 level										

A standard multiple regression analysis was performed between the dependent variable (attitude towards athlete endorsements on Twitter) and the independent variables (athlete-product congruence, source attractiveness, source expertise, source trustworthiness, self-efficacy, information overload, consumer skepticism, attitude towards paid endorsements, and attitude towards personal endorsements). Assumptions were tested by examining normal probability plots of residuals and scatter diagrams of residuals versus predicted residuals. No violations of normality, linearity, or homoscedasticity of residuals were detected. In addition, box plots

revealed no evidence of outliers. Regression analysis revealed that the model significantly predicted attitude towards athlete endorsements on Twitter, $F(9, 62) = 5.12, p < .001$. R^2 for the model was .43, and adjusted R^2 was .34. Table 4 displays the unstandardized regression coefficients (B), intercept, and standardized regression coefficients (β) for each variable. In terms of individual relationships between the independent variables and attitude towards athlete endorsements on Twitter, athlete-product congruence ($t = 2.22, p < .01$), self-efficacy ($t = -2.43, p < .05$), and attitude towards paid endorsements ($t = -3.73, p < .01$) each significantly predicted attitude towards athlete endorsements (see Table 2 for means and standard deviations). Regression analysis was also conducted on each individual branch of the proposed model against the dependent variable. Tables for these results can be found in the appendix.

R	R Square	Adjusted R Square	Std. Error of the Estimate	F(9,62)	Sig.
.653	.426	.343	.790	5.12	<.01**
Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
(Constant)	3.58	.837		4.27	<.01**
Athlete-product congruence	.222	.100	.258	2.22	<.05*
Source attractiveness	.052	.111	.062	.47	.64
Source expertise	.077	.120	.094	.64	.53
Source trustworthiness	.031	.149	.029	.21	.84
Self-efficacy	-.285	.117	-.283	-2.43	<.05*
Information overload	.108	.091	.125	1.19	.238
Consumer Skepticism	.191	.104	.220	1.85	.07
Attitude towards paid endorsements	-.502	.135	-.371	-3.73	<.01**
Attitude towards personal endorsements	.126	.073	.175	1.74	.09

** . Correlation is significant at the 0.01 level

*. Correlation is significant at the 0.05 level

Implications and Conclusion

The proposed model predicts that each of the independent variables listed will have an impact on attitude towards athlete endorsements. These variables were grouped into source characteristics, consumer characteristics, and media characteristics. Results indicate that source and media characteristics carry more influence than consumer characteristics. However, one could make the argument that participant responses were state-based rather than trait-based. Conditions that are most typically conceptualized as states are generally presumed to be short-lived (Nowlis, 1970). Alternatively, traits are often defined as enduring and long-term (Allport, 1961). Perhaps participants' responses were a reflection of how they felt on the day they took the survey instrument and not a true reflection of their attitude towards athlete endorsers and the endorsements they encounter on Twitter. If the participant had a bad encounter with an athlete on Twitter, such as not getting a retweet or response from the athlete, this may have resulted in lower scores on scales focusing specifically on athlete endorsers. One example of this could be from the use of a Lamar Odom tweet in the survey instrument. The basketball player was recently released from the Dallas Mavericks for his poor attitude and inconsistent play (Hawkins, 2012). If the participant was a fan of the Dallas Mavericks, the use of a Lamar Odom tweet may have hit a nerve and primed the respondent in a negative way. Thus, participants may have responded to survey items based on how they felt during that particular moment rather than how they feel towards athlete endorsements in an overall sense.

Regardless, the results for source characteristics should appease advertising practitioners, because source and media characteristics are the two areas that they can exhibit some control

over. For example, a company utilizing athlete endorsements on Twitter has the option of picking the athlete that best fits their brand image, product, or service. Therefore, the company has some control over source attractiveness and perceived expertise and trustworthiness.

However, a company may want to focus more on perceived expertise and trustworthiness.

As mentioned earlier, studies have revealed that physically attractive celebrities have a considerable impact on the image of the brands and products associated with them. Joseph (1982) concluded physically attractive celebrity endorsers have a positive impact on how consumers think about and assess products. This was later confirmed by Kahle and Homer (1985), who determined that physical attractiveness of celebrities creates a greater response to the brand they promote. It also increases positive evaluations for the brand by the target audience (Kahle & Homer, 1985). As studies have shown, source attractiveness can carry significant influence. However, results in this study revealed that source attractiveness had a rather weak impact on attitude towards athlete endorsements on Twitter. Twitter is unlike traditional media in the sense that the consumer does not receive prolonged exposure to the physical appearance of the athlete. They are not watching a 30-second television commercial or flipping through a magazine. Instead, consumers are rapidly sending and receiving tweets. Athletes, like other users, are identified only by their Twitter account name and the small profile picture they choose. While most athletes opt for straightforward account names (e.g. @SteveNash, @ochocinco), others take a more creative approach. For example, Texas Rangers pitcher Derek Holland's account name is @Dutch_Over45. Profile pictures are often the same way. While some like Boston Celtics' Paul Pierce and Indiana Pacers' George Hill choose obvious personal pictures of themselves, others opt for pictures of their children, pets, or even cartoons like Chad Ochocinco has done. Thus, what little "face time" the athlete could have with consumers on Twitter is

minimized even further when the picture and name do not capitalize on the athlete's name or physical appearance. One suggestion would be to require the athlete endorsement to tweet under a certain account name or use a particular profile picture.

However, it is evident that practitioners should focus more on source credibility than source attractiveness when using athlete endorsements on Twitter. Studies have shown that a credible source can influence opinions and consumer behavior through the internalization process (Kelman, 1961). Of the two components that define source credibility, results revealed that source expertise carries more influence over attitude towards athlete endorsements on Twitter than source trustworthiness. According to McGinnies and Ward (1980), expertise is obtained through knowledge of the subject and trustworthiness refers to the honesty and believability of a source. However, some authors argue perceived expertise of a celebrity endorser can affect purchase decision more than source attractiveness or any other factor (Ohanian, 1990). The results of this study seem to support this claim. Though this study did not focus on purchase intention, the results did reveal that participants responded more positively to source expertise than source trustworthiness. This is beneficial for practitioners as they can control for expertise more than they can trustworthiness. For example, a company selling a basketball shoe can enlist a professional basketball player for his endorsement. Based on his job as a basketball player, he should be perceived as an expert in what makes a good, comfortable basketball shoe. Companies can also control for trustworthiness by selecting players with clean, responsible images, but outside factors (e.g. gossip, legal problems, etc.) can seep in and possibly tarnish the image and trustworthiness of the athlete.

These results are particularly important because they also address athlete-product congruence. Results revealed that athlete-product congruence had a moderate positive correlation

to attitude towards athlete endorsements. Therefore, as the “match up” between the athlete and the endorsed brand or product increases, so does attitude towards athlete endorsements on Twitter. This aligns with Kamin’s (1990) findings that endorsers are more effective when there is a corresponding relationship between the endorser and the product, thus supporting the match-up hypothesis.

It was believed that participants would respond more favorably towards personal endorsements rather than paid endorsements. However, results proved otherwise. There was not a significant relationship between personal endorsements and attitude towards athlete endorsements on Twitter. This suggests that consumers read the personal tweets as just that, personal tweets. It appears that while they are testimonials, consumers do not perceive them as athlete endorsements. Therefore, practitioners should not place much hope in receiving free public relations buzz from an athlete who happens to like the company’s product. Practitioners should also think carefully about how they approach athlete endorsements on Twitter. Results revealed that paid endorsements have a moderate, negative correlation to attitude towards athlete endorsements on Twitter. Based on this finding, practitioners will want to create a campaign strategy that does not irritate or annoy consumers on Twitter. This may involve limiting the number of endorsed tweets or controlling when they are posted.

The results of this study have several implications on theory, specifically on consumer skepticism. Respondents indicated a moderate degree of consumer skepticism ($M=4.25$). Bailey (2007) found that respondents indicated celebrity endorsers would have little impact on consumers because they, and other consumers, do not buy products simply because celebrities endorse them. Another study (Tripp, Jensen & Carlson, 1994) found that while participants demonstrated consumer skepticism, there was no evidence it diminished consumers’ attitudes

and perceptions. Findings in this study seem to align with what has been previously concluded. Results revealed that there was not a statistically significant relationship between the degree of consumer skepticism and attitude towards athlete endorsements on Twitter. Though not significant, consumer skepticism should not be dismissed entirely. While it may not have increased or decreased attitude towards athlete endorsements on Twitter, participants still indicated a moderate degree of consumer skepticism. Advertising practitioners should keep this in mind for future campaigns for social media and beyond. As the Persuasion Knowledge Model suggests, persuasion knowledge is accumulated over time through various experiences and relationship. This survey was primarily administered among young adults, who may not have had as much exposure to advertising as their adult counterparts. It is possible an older sample may indicate a higher degree of consumer skepticism. This may in turn have a strong effect on their attitudes towards advertising in general, but especially towards advertising on social media.

The findings also suggest that self-efficacy does not have a significant association in regards to attitude towards athlete endorsements. This means that as self-efficacy increases or decreases, neither does attitude towards athlete endorsements on Twitter. However, the regression analysis did reveal that self-efficacy does predict attitude towards athlete endorsements. The theory behind self-efficacy suggests that the more self-efficacious one feels towards a certain medium, their expectations of obtaining specific outcomes also increases. Prior to this study, it was believed that the expected positive outcomes of social media use should cause further exposure and usage. It was also assumed another specific outcome would be continued interaction with athletes on Twitter, which would result in a positive assessment of athlete endorsements on Twitter. However, the results revealed that self-efficacy did not impact attitude towards athlete endorsements on Twitter. At first glance, one might assume that lack of

relationship may be caused by the use of a younger sample. The majority of the sample fell between the ages of 18-25. Of the 212 respondents, 151 (71.2%) indicated they have a Twitter account. Therefore, the sample was skewed towards a more social media savvy audience. However, what is of particular interest is that the mean ($M=3.79$) for the self-efficacy scale is not particularly high, but just shy of the scale's mid-point. One would have expected a much higher mean among such a young sample. Theoretically speaking, this should have fallen under hypothesis 5b, which suggested low self-efficacy predicts a negative attitude towards athlete endorsements on Twitter. It is quite possible there is still a relationship between the two variables, one that this study's survey instrument did not capture. Future research could include self-efficacy as a moderating variable to determine if there is a difference between age groups or other social media users.

Much like self-efficacy, information overload did not have a significant impact on attitude towards athlete endorsements on Twitter. This is another variable that diverged from the literature review. The Limited Capacity Model assumes that individuals have a limited capacity to process information. Prior to this study, it was believed that due to the excess of information available on Twitter, consumers would be unable to process all of the information and would result in a negative attitude towards athlete endorsements on Twitter. However, the results revealed that there was not a significant relationship between information overload and attitude towards athlete endorsements on Twitter. The mean for the information overload scale ($M=3.32$) suggests that participants process large amounts of information on Twitter. In the literature review, it was suggested that consumers may miss endorsement tweets by scrolling over them in order to catch up with their Twitter feeds. Instead of highlighting the concept of information overload, perhaps this study should have focused the three steps of information process

suggested by Lang (2000): encoding, storage, and selection. Perhaps it is not a question of being overloaded with information, but the lack of awareness. In order to process information, one must first be aware of the information. If Twitter users are just skimming over hundreds of tweets, they may not be processing any information at all. Thus, a consumer must be aware of the endorsement if they are going to make the effort to encode, store, and select the information for recall. Again, like self-efficacy, information overload could be used as a moderating variable in future research. This may reveal significant differences between age groups or other social media users.

Limitations and Future Research

Several limitations exist for this research endeavor. One significant limitation of this study is the lack of an experiment. This study utilized a three-item scale to measure athlete-product congruence. However, this focused on athlete-product congruence as an overall concept. The seven-point semantic differential scale used previously in a study by Till and Busler (2000) used the following anchors: do not belong with each other/belong with each other, do not go together/go together, and do not fit together/fit together. Respondents were asked about their attitude towards athlete endorsements in general. However, athlete-product congruence would be measured best through an experimental design where the researchers can control for and measure how the relationship impacts behavioral change such as attitude towards the endorsement or purchase intention. It is the researcher's intention to pursue further research on the match-up hypothesis and athlete-product congruence on Twitter using an experimental design to measure the effect of independent variables such as source attractiveness and source credibility.

Another limitation is the lack of data for athlete endorsements in traditional media. This is particularly a limitation in the first hypothesis. The hypothesis should have been extended to

compare the role of physical attractiveness in Twitter posts to other outlets like television commercials. However, this survey failed to collect data on other media vehicles. This would make a good study in the future. It would be interesting to see how respondents measure source characteristics like physical attractiveness, expertise, and trustworthiness via different media vehicles. Practitioners could benefit from knowing which characteristics are more influential and in what media vehicles. This would allow them to better allocate their time and resources to various media.

Lastly, another problematic issue in this study is the use of a convenience sample. Unfortunately, the researcher did not have a comprehensive list of all Twitter users to randomly select from. The use of a convenience sample resulted in predominantly undergraduate female respondents. However, the sample does align with the average Twitter user. Studies show that 45% of online young adults between the ages of 18-34 use Twitter (Quantcast, 2011). According to Quantcast (2011), 67% of Twitter users are Caucasian and nearly 51% have at least some college education. In addition, females are the most active users of Twitter (Nielsen 2011) and account for 57% of Twitter users (Solis, 2010). Though these findings cannot be generalized to a larger population, they can be seen as a glimpse into how the average Twitter user feels about athlete endorsements on Twitter.

Though it was revealed that several of the independent variables did not have a significant impact on attitude towards athlete endorsements, the model suggests otherwise. Regression analysis revealed that self-efficacy does predict attitude towards athlete endorsements on Twitter. It is the researcher's belief that possible relationships still exist, but perhaps in a different capacity. For example, as discussed in the preceding section, the mean score for the self-efficacy scale was relatively low considering the average age and frequent social media use. Theoretically

speaking, this should have fallen under hypothesis 5b, which claimed that low self-efficacy would predict a negative attitude towards athlete endorsements on Twitter. However, the correlational analysis revealed that there was not a statistically significant relationship between self-efficacy and attitude towards athlete endorsements on Twitter. One suggestion is to operationalize self-efficacy in a different way, one that also focuses on the expected outcomes of the related behavior, like continued media use and future interaction with athletes on Twitter. Consequently, participants did indicate a moderately positive response ($M=4.38$) when asked if they would continue following athletes on Twitter. However, this survey item does not account for future interaction with said athlete endorsers. Another possible solution is to include attitude towards the athlete endorser as a dependent variable. If an expected outcome of using Twitter is to interact with athletes, then it is likely that this will have an effect on the consumer's attitude towards the athlete endorser.

Though it was revealed that there is not a significant association between information overload and attitude towards athlete endorsements on Twitter, it is the researcher's belief that more research is warranted before it is removed from the model. As previously mentioned, LCM has three steps: encoding, storage, and selection. Prior to this study, it was believed that consumers would be so overwhelmed by the amount of information on Twitter that this would result in a negative attitude towards athlete endorsements on Twitter. It was assumed that if a consumer missed checking his or her Twitter feed for a period of time, he or she would miss the endorsements all together. One change to make on the proposed model would be to remove information overload and add endorsement awareness. In order to process information, the consumer must first be aware that there is information to consume. If the consumer is simply

skipping over hundreds of Twitter posts in order to catch up, then there are no endorsements to process.

This study revealed some interesting findings that suggest further research may be needed to better understand how celebrity endorsements work in a social media capacity. This study only scratches the surface of what has yet to be revealed about advertising through social media. Whether it is designing an experiment to examine the match-up hypothesis or expanding theories into other social media sites, there is much to be learned about social media as both a medium and as an advertising platform.

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Appendix

A. Consent Form

The purpose of this survey is to examine users of social media websites and their attitude towards the athlete endorsements they encounter on these websites, specifically Twitter.

This study is being conducted for academic purposes by a graduate student at Texas Christian University's Schieffer School of Journalism as part of a thesis project.

The Texas Christian University Institutional Review Board has approved this survey. All responses will be kept confidential and no identifying personal factors will be used in reporting the results of this survey. Your email address is used only to check for duplicate transmission and is deleted after the survey is received. Completion of this survey will be taken as your consent to participate in this research. If at any time you wish to withdraw from the survey, just close your browser window. There is no penalty for withdrawing.

The survey should take between 15-20 minutes to complete. We really appreciate your time. If you have any questions or comments, please email N.Cunningham@tcu.edu.

As part of the survey procedures we're including a "snowball" option – we're asking you to please send the survey URL to people you know who access websites, blogs, and social media sites, Twitter, or YouTube.

URL: http://tcucommunication.us.qualtrics.com/SE/?SID=SV_eKE053faxcW5LAU

Please copy the URL into an email, onto a website or blog, or tweet it to those you think would be interested in filling out the survey.

The URL is also posted at the end of the survey.

Thank you for your time and consideration – we very much appreciate you sharing your thoughts and opinions with us!

To take the survey, click to the next page.

B. Survey Instrument

These first questions will address general consumer behavior. Please answer the following based on your personal consumer behavior.

Using the following scale, please mark your attitude toward the following statements.

You seek guidance or cues from others as to how to behave in social situations.

Certainly, always false
Generally false
Somewhat false, but with exception
Somewhat true, but with exception
Generally true
Certainly, always true

I avoid wearing clothes that are not in style.

Certainly, always false
Generally false
Somewhat false, but with exception
Somewhat true, but with exception
Generally true
Certainly, always true

When I am uncertain how to act in a social situation, I look to the behavior of others for cues.

Certainly, always false
Generally false
Somewhat false, but with exception
Somewhat true, but with exception
Generally true
Certainly, always true

I find that I tend to pick up slang expressions from others and use them as part of my own vocabulary.

Certainly, always false
Generally false
Somewhat false, but with exception
Somewhat true, but with exception
Generally true
Certainly, always true

The slightest look of disapproval in the eyes of a person with whom I am interacting is enough to make me change my approach.

- Certainly, always false
- Generally false
- Somewhat false, but with exception
- Somewhat true, but with exception
- Generally true
- Certainly, always true

When I'm in a social situation, I tend not to follow the crowd, but instead behave in a manner that suits my particular mood at the time.

- Certainly, always false
- Generally false
- Somewhat false, but with exception
- Somewhat true, but with exception
- Generally true
- Certainly, always true

On a scale of 1-7, please measure how connected you feel to others around you.

I feel disconnected from the world.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Even around people I know, I don't feel that I belong.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I don't feel I participate with anyone or any group.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I have no sense of togetherness with my peers.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

On a typical WEEKDAY (excluding weekends), how much time would you estimate that you spend using the Internet? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKDAY (excluding weekends), how much time would you estimate that you spend consuming user-generated content (i.e., blogs, Tumblr posts, YouTube videos, Flickr and other photosharing sites)? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKDAY (excluding weekends), how much time would you estimate that you spend consuming content through RSS news feeds? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKDAY (excluding weekends), how much time would you estimate that you spend text messaging via your cell phone? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKDAY (excluding weekends), how much time would you estimate that you spend using email? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKDAY (excluding weekends), how much time would you estimate that you spend using smart phone applications? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKDAY (excluding weekends), how much time would you estimate that you spend using Facebook? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKDAY (excluding weekends), how much time would you estimate that you spend using Twitter? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKEND day (excluding weekdays), how much time would you estimate that you spend using the Internet? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKEND day (excluding weekdays), how much time would you estimate that you spend consuming user-generated content (i.e., blogs, Tumblr posts, YouTube videos, Flickr and other photosharing sites)? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKEND day (excluding weekdays), how much time would you estimate that you spend consuming content through RSS news feeds? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKEND day (excluding weekdays), how much time would you estimate that you spend text messaging via your cell phone? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKEND day (excluding weekdays), how much time would you estimate that you spend using email? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKEND day (excluding weekdays), how much time would you estimate that you spend using smart phone applications? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKEND day (excluding weekdays), how much time would you estimate that you spend using Facebook? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

On a typical WEEKEND day (excluding weekdays), how much time would you estimate that you spend using Twitter? (If none, leave the slider bar at 0.)

Minutes 0 30 60 90 120 150 180 210 240 270 300

Thank you for your responses. The following questions will focus on your general social media usage.

Do you use social media tools to connect with others?

- Yes
- No

Do you use social media tools to gather information about products or people?

- Yes
- No

Which social media tools do you use? (Select all that apply.)

- Facebook
- Google+
- LinkedIn
- MySpace
- Pintrest
- StumbleUpon
- Tumblr
- Twitter
- Other

The following questions will address your ability to acquire the skills needed to participate on social media sites.

I spend time experimenting with social media sites I don't know very well in order to increase my knowledge.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I take advantage of any situation where I can learn more about social media.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I use the "help" feature included on social media sites to help me learn how they work.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

The following questions will address your ability to use social media to perform various tasks.

I am extremely skilled at using social media.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Using social media challenges me to perform to the best of my ability.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I know somewhat less about using social media than most users.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Using social media provides a good test of my skills.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I know how to find what I am looking for on social media.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I find that using social media stretches my capabilities to my limits.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

The following questions will address your ability to adapt to social media.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I believe that almost all businesses will be using social media within the next year.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I am comfortable with the idea of using social media.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I have a good understanding of the effects of social media on society and individuals.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Do you have a Twitter account?

Yes

No

Thank you for your responses. Now that we have determined you are a Twitter user, the following questions will focus specifically on Twitter.

How often do you use Twitter?

- Never
- Less than Once a Month
- Once a Month
- 2-3 Times a Month
- Once a Week
- 2-3 Times a Week
- Daily

Do you use Twitter to:

Communicate with people.

Never 1 2 3 4 5 Very Often

Share information about yourself (i.e. your daily plans, whereabouts, etc.)

Never 1 2 3 4 5 Very Often

Share information with others (i.e. post links, videos, photos, etc.)

Never 1 2 3 4 5 Very Often

Connect with celebrities.

Never 1 2 3 4 5 Very Often

Who do you follow on Twitter? (Select all that apply.)

- Friends
- Co-Workers
- Family
- Actors
- Athletes
- Politicians
- Businesses
- News Organizations

How many accounts do you follow?

- 0-25
- 26-50
- 51-100
- 101-200
- 201-300
- 301-400
- 401-500
- 500+

How many followers do you have?

- 0-25
- 26-50
- 51-100
- 101-200
- 201-300
- 301-400
- 401-500
- 500+

The following questions will address your ability to use Twitter to perform various tasks.

I am extremely skilled at using Twitter.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Using Twitter challenges me to perform to the best of my ability.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I know somewhat less about using Twitter than most users.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Using Twitter provides a good test of my skills.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I know how to find what I am looking for on Twitter.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I find that using Twitter stretches my capabilities to my limits.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

On a scale of 1-7, please measure your ability to process the information you gather from Twitter.

I am likely to receive too much information when I am searching for something on Twitter.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I am frequently overwhelmed by the amount of information available on Twitter.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

When searching for information on Twitter, I frequently just give up because there is too much to deal with.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I am confident in my ability to deal with large amounts of information on Twitter, such as following many different users and processing their Twitter updates.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

This is an example of an advertisement you might see on Twitter.



On a scale of 1-7, measure your attitude towards advertising on Twitter.

We can depend on getting the truth in most advertising on Twitter.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Advertising's aim on Twitter is to inform the consumer.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I believe advertising on Twitter is informative.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Advertising on Twitter is generally truthful.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Advertising on Twitter is a reliable source of information about the quality and performance of products.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Advertising on Twitter is truth well told.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

In general, advertising on Twitter presents a true picture of the product being advertised.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I feel I've been accurately informed after viewing most advertisements on Twitter.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Most advertising on Twitter provides consumers with essential information.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Thank you for your responses. Now that we know more about how you utilize Twitter, the remaining portion of this survey will focus on athlete endorsements as they appear in Twitter.

Do you follow athletes on Twitter?

- Yes
- No

This is an example of a sponsored endorsement on Twitter.



Aside from the example shown above, have you ever seen an athlete or celebrity use the following hashtags: #spon, #paid, or #samp?

- Yes
- No

On a scale of 1-5, please measure your attitude towards athlete endorsements on Twitter. An athlete endorsement is when a professional athlete recommends a product or service for your attention or purchase.

Athlete endorsements on Twitter provide useful information.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I think that athlete endorsements on Twitter are often deceptive.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I usually do not pay attention to athlete endorsements on Twitter.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I typically do not click on any type of endorsement I see on Twitter.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I am bored by athlete endorsements on Twitter.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Athlete endorsements on Twitter are quite bothersome to me.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Athlete endorsements on Twitter constitute a pleasant break from my Twitter experience.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Athlete endorsements on Twitter distract unpleasantly from my Twitter experience.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Athlete endorsements on Twitter provide an irritating interference with my Twitter experience.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Think about the athletes you follow on Twitter and consider their physical attractiveness and personality.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

On a scale of 1-7, how appealing are the athletes you follow on Twitter?

Unappealing 1 2 3 4 5 6 7 Appealing

Undesirable 1 2 3 4 5 6 7 Desirable

Unwanted 1 2 3 4 5 6 7 Wanted

Think about the athletes you follow on Twitter. On a scale of 1-7, how stimulating are the athletes you follow on Twitter?

Boring 1 2 3 4 5 6 7 Interesting

Unexciting 1 2 3 4 5 6 7 Exciting

Mundane 1 2 3 4 5 6 7 Fascinating

Unintelligent 1 2 3 4 5 6 7 Intelligent

When using Twitter to interact with athletes, do you feel:

Uninvolved 1 2 3 4 5 6 7 Involved

Not absorbed 1 2 3 4 5 6 7 Absorbed

Not stimulated 1 2 3 4 5 6 7 Stimulated

When an athlete uses Twitter to endorse a product, on a scale of 1-7, how relevant do you find the endorsement tweets?

...might be important to me.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

...might be meaningful to me.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

...might be "for me."

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

...might be worth remembering.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

...might be of value to me.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

...might be relevant to my needs.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

...might be worth paying attention to.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

...would give me new ideas.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Athletes often use Twitter to endorse products and services. On a scale of 1-4, measure your attitude towards these endorsement tweets.

Do you find these endorsement tweets:

Good

No, definitely not 1 2 3 4 5 6 7 Yes, definitely

Interesting

No, definitely not 1 2 3 4 5 6 7 Yes, definitely

Informative

No, definitely not 1 2 3 4 5 6 7 Yes, definitely

Appropriate

No, definitely not 1 2 3 4 5 6 7 Yes, definitely

Easy to understand

No, definitely not 1 2 3 4 5 6 7 Yes, definitely

Objective

No, definitely not 1 2 3 4 5 6 7 Yes, definitely

On Twitter, athletes will often make endorsements that are not paid for or sponsored. For example, an athlete may say he or she likes to wear a certain brand of clothing.

Below are a few examples of non-sponsored endorsements you might see on Twitter.



LeBron James @KingJames

16 Jan

Man I'm seriously addicted to #TempleRun #GameApp



Drew Brees @drewbrees

21 Feb

Sitting at my Jimmy Johns in New Orleans eating a #9. Parade crowd is gone. Nice and quiet. Anyone care to join me?

On a scale of 1-7, measure your attitude towards the testimonial tweets you encounter on Twitter.

Very ineffective testimonial	1	2	3	4	5	6	7	Very effective testimonial
Weak advertisement	1	2	3	4	5	6	7	Strong advertisement
Not at all persuasive	1	2	3	4	5	6	7	Very persuasive
Very ineffective for getting people like you to try the product or service	1	2	3	4	5	6	7	Very effective for getting people like you to try the product or service

On a scale of 1-7, how similar do you feel the athletes you follow on Twitter are to you? The athlete and I probably have similar values and beliefs.

Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
-------------------	---	---	---	---	---	---	---	----------------

The athlete is quite a bit like me.

Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
-------------------	---	---	---	---	---	---	---	----------------

It's likely that the athlete and I have similar tastes and preferences.

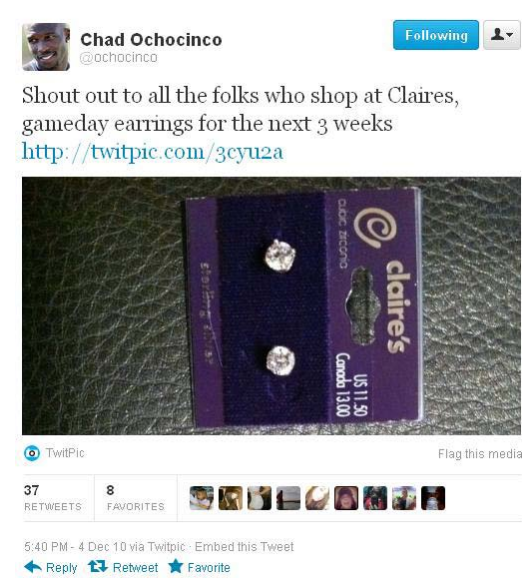
Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
-------------------	---	---	---	---	---	---	---	----------------

Often times athletes will endorse products that do not "match" them.

This is an example of an endorser that matches the product he is endorsing (i.e. basketball player → basketball shoes).



This is an example of a weak match-up between an endorser and the product he is endorsing (i.e. football player → jewelry from Claire's Boutique).



Based on the celebrity endorsements you have encountered on Twitter, please answer the following questions.

In general, I think athlete endorsers on Twitter are:

Inappropriate	1	2	3	4	5	6	7	Appropriate
---------------	---	---	---	---	---	---	---	-------------

Ineffective	1	2	3	4	5	6	7	Effective
-------------	---	---	---	---	---	---	---	-----------

I think the combination of athletes and the products and services they endorse:

Do not belong with each other	1	2	3	4	5	6	7	Belong with each other
Do not go together	1	2	3	4	5	6	7	Go together
Do not fit together	1	2	3	4	5	6	7	Fit together

The athlete endorsers I see on Twitter are:

Unattractive	1	2	3	4	5	6	7	Attractive
Not classy	1	2	3	4	5	6	7	Classy
Ugly	1	2	3	4	5	6	7	Beautiful
Plain	1	2	3	4	5	6	7	Elegant
Not sexy	1	2	3	4	5	6	7	Sexy

The athlete endorsers I see on Twitter are:

Not experts	1	2	3	4	5	6	7	Experts
Inexperienced	1	2	3	4	5	6	7	Experienced
Unknowledgeable	1	2	3	4	5	6	7	Knowledgeable
Unqualified	1	2	3	4	5	6	7	Qualified
Unskilled	1	2	3	4	5	6	7	Skilled

The athlete endorsers I see on Twitter are:

Undependable	1	2	3	4	5	6	7	Dependable
Dishonest	1	2	3	4	5	6	7	Honest
Unreliable	1	2	3	4	5	6	7	Reliable
Untrustworthy	1	2	3	4	5	6	7	Trustworthy

Based on the physical attractiveness of the athletes you follow on Twitter, will you continue to follow them?

No, definitely not	1	2	3	4	5	6	7	Yes, definitely
--------------------	---	---	---	---	---	---	---	-----------------

How old are you?

- Under 13
- 13-17
- 18-25
- 26-34
- 35-54
- 55-64
- 65 or over

What is your gender?

- Male
- Female

What is the highest level of education you have completed?

- Less than High School
- High School / GED
- Some College
- 2-year College Degree
- 4-year College Degree
- Masters Degree
- Doctoral Degree
- Professional Degree (JD, MD)

What is your ethnicity?

- African American
- American Indian
- Asian American
- Caucasian
- Hispanic American
- Native American
- Multiracial
- Other
- Prefer not to answer

What is your annual income range?

- Below \$20,000
- \$20,000 - \$29,000
- \$30,000 - \$39,000
- \$40,000 - \$49,000
- \$50,000 and above
- Prefer not to answer

In what industry do you work in?

What is your occupation?

Extra Credit/Drawing

If you took this survey for class participation, please leave the following information so you may receive credit.

Professor

Course

Student Email

If you would like to be entered into the drawing for a \$25 gift card, please leave your email address. The winner will be randomly selected and contacted via email.

C. Example Tweets

Example of an advertisement on Twitter



Nike @Nike

19 Jan

Be the first to [#makeitcount](#) with the Nike+ FuelBand. Limited quantities available for pre-order at 5:00 PM EST

pic.twitter.com/VWiakjp5

 [View photo](#)

Example of a sponsored endorsement on Twitter



LAMAR ODOM @RealLamarOdom

6 Feb

There's a [#betterway](#) - Choose Phone Freedom @BestBuy & get a \$50 gift card when you upgrade bit.ly/xr2eyC [#betterway](#) [#ad](#)

Examples of non-sponsored endorsements on Twitter



LeBron James @KingJames

16 Jan

Man I'm seriously addicted to [#TempleRun](#) [#GameApp](#)



Drew Brees @drewbrees

21 Feb

Sitting at my Jimmy Johns in New Orleans eating a #9. Parade crowd is gone. Nice and quiet. Anyone care to join me?

Example of high athlete-product congruence on Twitter



Kevin Durant
@KDTrey5

Following

▼

The [#KDIV](#) Year of the Dragon should be up at [@Nikestore](#) now here: durant.is/YOTDKD4. Go get em!

11:00 PM - 2 Feb 12 via Twitter for iPhone · Embed this Tweet

 Reply
  Retweet
  Favorite

Example of low athlete-product congruence on Twitter



Chad Ochocinco
@ochocinco

Following

Shout out to all the folks who shop at Claires,
gameday earrings for the next 3 weeks
<http://twitpic.com/3cyu2a>



TwitPic

Flag this media

37

RETWEETS

8

FAVORITES



5:40 PM - 4 Dec 10 via Twitpic · Embed this Tweet

Reply Retweet Favorite

D. Additional Regression Tables

R	R Square	Adjusted R Square	Std. Error of the Estimate	F(4,67)	Sig.
.451	.203	.156	.896	4.27	<.01**
Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error	Beta	T	Sig
Athlete-product congruence	.26	.11	.30	2.36	<.05*
Source attractiveness	.04	.12	.05	.34	.74
Source expertise	.14	.13	.17	1.03	.31
Source trustworthiness	.03	.17	.03	.18	.86

** . Correlation is significant at the 0.01 level
 * . Correlation is significant at the 0.05 level

R	R Square	Adjusted R Square	Std. Error of the Estimate	F(3,68)	Sig.
.336	.113	.074	.938	2.89	< .05*
Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
Self-efficacy	-.34	.14	-.34	-2.50	<.05*
Information overload	.03	.10	.04	.29	.77
Consumer Skepticism	.30	.12	.35	2.54	<.05*

** . Correlation is significant at the 0.01 level
 * . Correlation is significant at the 0.05 level

R	R Square	Adjusted R Square	Std. Error of the Estimate	F(2,69)	Sig.
.475	.225	.203	.871	10.03	<.01**
Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
Attitude towards paid endorsements	-.56	.14	-.42	-3.91	<.01**
Attitude towards personal endorsements	.19	.08	.26	2.47	<.05**

** . Correlation is significant at the 0.01 level
 * . Correlation is significant at the 0.05 level

E. New Proposed Model Based on Results

