Need for Affiliation of College Football Fans: A Partial Least Squares (PLS) Path Modeling Approach

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The purpose of this paper is to examine the conditions under which the need for affiliation mediates the relationship between personality traits and the need for identification, particularly as it relates to fans of college football teams. The data are from 399 participants in an online survey. The results indicate that for the dependent variable identification, the effect of need for affiliation is significant. For the dependent variable of need for affiliation, extraversion, arousal, agreeability, and material needs are significant, while conscientiousness is partially supported. This study seeks to inform practitioners of the benefits from having highly identified/highly attached fans.

INTRODUCTION

Sports have become a significant part of college life. Beyond the enjoyment they provide for students, in a time of reduced public funding for higher education, they have become a significant venue through which operating funds are generated for universities. Research conducted by Mitchell and Leachman (2015) indicates that in 47 states public funding for higher education remains lower than the 2008 figure. The granddaddy of all big money sports on the college campus is football. In the 2013-2014 season, all 64 schools in the five major conferences brought in a total of 2.6 billion dollars in revenue, mainly through broadcast rights and ticket sales (Isidore, 2015). The University of Alabama, the leading team in the SEC, was third overall generating 53.3 million dollars in profits (Isidore, 2015). Clearly colleges have a vested interest in building and maintaining spectator support of their teams.

While it may be easy to fill the stands in a year when the team is winning, it is equally important to maintain fans when a team is not at the top of the standings. When individuals strongly identify with their

college teams they are likely to be more loyal fans. But who are those loyal fans? Utilizing the framework of social identity theory, this research will test a model linking personality traits to identification with college football teams. Fans whose personalities predispose them to demonstrate a high need for affiliation with others are expected to identify more strongly with their teams. Therefore, we address the following research question:

RQ: To what extent do individuals with particular personality traits identify with their favorite college football team?

The rest of this paper is presented as follows: First, the theoretical frameworks used in this study and an overview of relevant literature are described. The research model is posited, and a set of hypotheses is developed predicting the conditions under which the need for affiliation mediates the relationship between personality traits and the need for identification. The research method is discussed, and the data collected are used to empirically test the relationships posited. A discussion of the results of our analyses follows. The paper concludes with limitations and opportunities for future research as well as expected contributions for research and practice.

SOCIAL IDENTIFICATION

Identification takes place when a person believes he or she is part of a group and is further defined as, "perceived oneness with or belongingness to an organization" (C. Bhattacharya, H. Rao, & M. A. Glynn, 1995, p. 46). When people identify with an organization, they perceive a sense of connectedness and define themselves in terms of the organization (Mael & Ashforth, 1992). When one identifies with a college sports team, for example, the perception gained is that of belongingness or membership, and this identification enables a person to take psychological ownership in the entity. Identification allows sports fans to share vicariously in the accomplishments of their sports teams.

Identification can be further explained through social identity theory. This theory suggests that an individual's self-concept includes a personal identity which is made up of attributes, like abilities and interests, along with a social identity, which includes social dimensions, such as being a parent, a worker, or a sports fan (Ashforth & Mael, 1989). Adhering to Ashforth and Mael's description for the purposes of this paper, identification is defined as being "… associated with groups that are distinctive, prestigious, and in competition with…other groups" (1989, p. 34). Previous research utilizing a college football context investigated some dispositional antecedents of identification. One study tested the influence of basic personality traits on the mediating variable of 'need for affiliation' and the outcome variable 'identification.' Within the context of being a sports fan and following a sports team, "…some individuals have a strong need to affiliate with others" (Donavan, Carlson, & Zimmerman, 2005, pp. 33-34). Results of this study showed that the basic personality traits of extraversion, agreeability, need for arousal, and materialism positively affected the need for affiliation. Subsequently, the need for affiliation positively influenced the level of identification with the team (2005).

Group membership

When people are asked questions, especially when asked to describe themselves, their answers invariably reflect associations with social groups which may include family, occupation, hobbies, or sports (Fisher & Wakefield, 1998). "Individuals seek group linkages to establish their position in the social environment, and to anchor their self-definition" (1998, p. 25). Sports teams are thought to be symbolic of a community and can further provide individuals with a sense of belonging to that community (Anderson & Stone, 1981, p. 284). "Sports fans tend to cheer for (and by implication are more likely to identify with) the home team, i.e., the team that represents their country, state, community, university, or other group" (Fisher, 1998). The fans feel connected to their team because they have a "…shared group affiliation" (1998).

Identification with social groups, such as a college football team, further demonstrates that highly involved fans can be extremely loyal and may hold a "…particular team as central to their identity where

team success and failure is interpreted as personal success and failure" (Gwinner & Swanson, 2003, p. 277). When sports fans identify themselves in terms of their relationship with the team, they "…feel ecstasy when the team wins and despair when they lose because the team is an extension of themselves" (Fisher, 1998, p. 283). The perception of belongingness or oneness with a group is also thought to contribute to increased self-esteem (Hogg & Turner, 1985). Individuals may emphasize the positive aspects of the group to which they identify (in-group) and minimize negative information, which further strengthens self-esteem (Wann & Branscombe, 1995).

Similarly, emphasizing negative information and downplaying the positive aspects of contrasting groups (out-groups) can also contribute to one's self-esteem. This is particularly significant for marketing as the strength of identification with a group results in a greater willingness for individuals to engage in consumptive behaviors that support the group (R. Fisher & Wakefield, 1998). Influence on consumers by their reference groups when selecting products and brands has long been recognized (Childers & Rao, 1992). For instance, highly-identified fans are more likely to purchase and wear their team colors and apparel (Fisher, 1998).

THEORETICAL PERSPECTIVE

FIGURE 1
RESEARCH MODEL
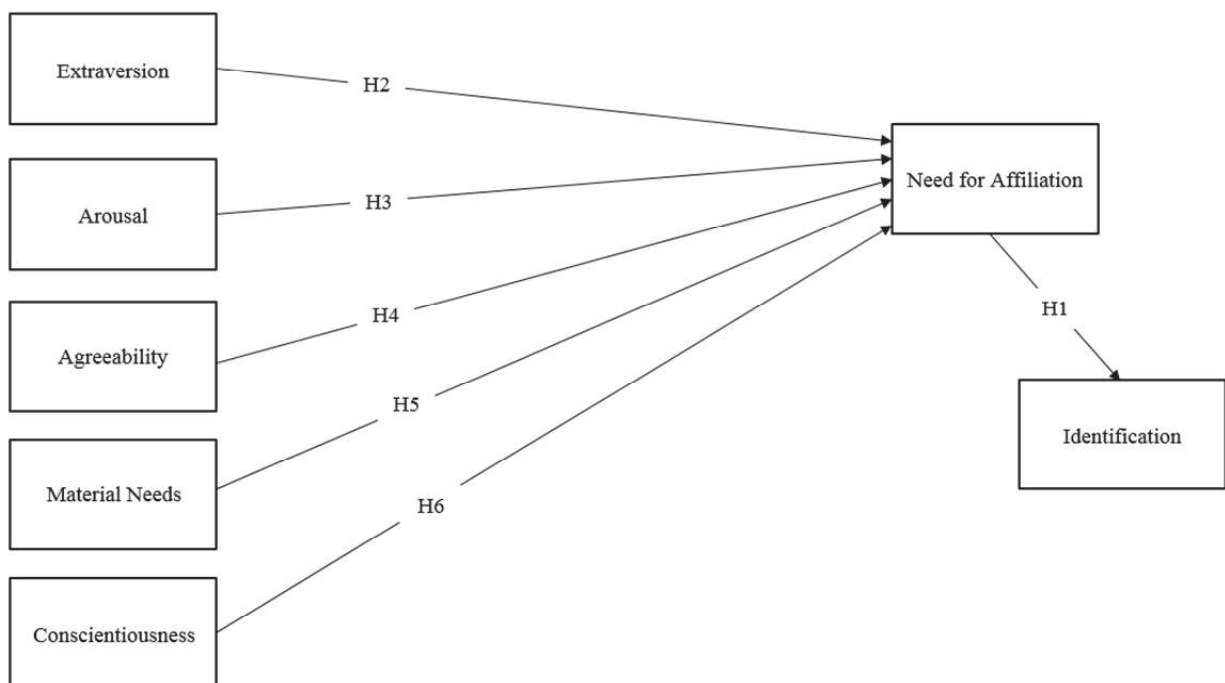
Need for affiliation
Throughout evolutionary history humans have sought social groups as a means of survival. A comprehensive review of the literature concluded that social connections are not merely a desire, they are, in fact, a human need (Baumeister & Leary, 1995; Mead, Baumeister, Stillman, Rawn, & Vohs, 2011). Additional research also indicates that membership in various groups serves to satisfy a variety of psychological needs (Johnson et al., 2006). Social groups, therefore, are vital in both our work and social lives. Essential criteria for group membership are "…that the individuals concerned define themselves

and are defined by others as members of a group" (Tajfel & Turner, 1979, p. 40), which creates a sense of belonging for individuals.

Social identity relates an individual's self-image to the social categories to which he or she belongs (Tajfel & Turner, 1979). Membership in social groups, an aspect of social identity, can contribute to or detract from one's self-image. These groups also provide a self-reference that defines an individual's place in society. Social identity theory indicates that individuals continually strive to maintain or enhance their self-esteem and positive self-image (1979). Mael and Ashforth (1992) indicate that identification with social groups satisfies the need for a social identity, which in turn provides a sense of belongingness. Individuals, however, do not have to interact directly with or even feel strong interpersonal ties to other group members in order to identify as members of a group (Bhattacharya, Rao, & Glynn, 1995; Brewer, 1991; Pratt, 1998; Stets & Burke, 2000). For example, individuals who are not members of a particular sports team may nevertheless identify strongly with that team. An even greater desire to be a member of a group when that group provides a positive self-image is likely (Donavan et al., 2005). An individual's social identity is, thus, inextricably linked to his or her identification with social groups (Tajfel & Turner, 2004).

Donavan et al. (2005) proposed that personality differences, including an individual's need for affiliation, may contribute to the degree to which an individual identifies with a group. Similarly, Marín and Ruiz de Maya (2013) developed a model of consumer-company identification that proposes a consumer's need for affiliation will influence the likelihood of his or her identification with a company. Research on the individual's need for affiliation has a long history in the organizational literature. Maslow (1943) first identified belonging and social needs as motivating factors in his hierarchy of needs, indicating that social involvement and friendships played a significant role in motivating behavior. In the 1960s David McClelland theorized that human behavior was motivated by the desire to satisfy a predominant need. These needs were theorized to be the result of societal and culture norms (McClelland, 1961, 1962). McClelland identified three dominant drives as the need for achievement, the need for affiliation, and the need of power. Different needs would be dominant in different individuals and different needs would subsequently drive different behaviors.

The need for affiliation is of particular interest in this research. Individuals with a strong need for affiliation are driven to relate to others socially and be accepted and liked by those they encounter. They are characterized as friendly, cooperative, and generally demonstrate positive attitudes. They pursue relationships both socially and in the workplace, and receive inner satisfaction from being with friends (Newstrom & Davis, 2002; Yukl, 2002). Those with a high need for affiliation actively seek out social contact and belongingness, and are gratified by positive relationships and a sense of community with others (Marín & Ruiz de Maya, 2013; Veroff & Veroff, 2013). They have an intrinsic need to belong and strong organizational identification offers them an opportunity to express and satisfy their need for affiliation. Those with a high need for affiliation are likely to identify with social groups, which satisfies their need to be liked as well as to gain approval and reassurance from others (Marín & Ruiz de Maya, 2013).

High need for affiliation individuals identify with social groups, including sports teams, which will satisfy their needs for emotional attachment and support (Johnson et al., 2006). One of the primary reasons reported for enjoying a sporting event was the social interaction that accompanied it (Wann, Wilson, & M, 1999). Further research suggests that "sportsfanship can unite individuals and provide them with feelings of belongingness and solidarity" (Jacobson, 1979, p. 8). But regardless of the type of organization, Glynn (1998) indicates that because high need for affiliation individuals need and want to belong to a group, they will demonstrate higher levels of organizational identification because this will allow them to express and satisfy their desire for affiliation. This discussion leads to the hypothesis that:

H1: The need for affiliation will be positively related to identification.

Extraversion

Extraversion can be defined as the tendency to be outgoing with others (Mowen, 2000). Extroverts are often known as 'people' people. They tend to have a wide circle of friends, and they put a lot of energy into their friendships. They need stimulation or they quickly become bored. In comparison, people who are introverts exhibit qualities of shyness and bashfulness (Mowen, 2000). These personality types prefer to avoid large groups of people and feel more energized when they spend time alone. They also tend to be preoccupied with their own thoughts and feelings. Extraversion actually reveals how comfortable individuals are with relationships. "Extroverts tend to be gregarious, assertive, and sociable, while introverts tend to be reserved, timid, and quiet" (Zopiatis & Constanti, 2012, p. 89).

In research to identify sports spectators, Appelbaum et al. (2012, p. 422) found that "Individuals who report higher levels of sports spectating tend to have higher levels of extraversion, and in particular excitement seeking and gregariousness." Appelbaum et al. (2012) utilized a variety of measures, in particular the "Big Five" personality dimensions, and found that individuals who reported high levels of watching sports also tended to have high levels of extraversion (2012). Their work did not distinguish between fans who were spectators at live events, such as college football games, or those who watched similar sports on television. A study by Ghorbani and Mousavi (2014) found a positive and significant relationship between the personality traits of extroversion and excitement as relates to brand identity and brand loyalty. Because extroverts enjoy spending time with and relating to others, as compared to introverts, we hypothesize that:

H2: Extraversion will be positively related to need for affiliation.

Arousal

Research to determine antecedents to *need for affiliation* led Mowen (2000) to extend the "Big Five" personality model to integrate an evolutionary perspective by adding physical needs, material needs, and the need for arousal. The need for arousal or excitement was included by Donavan as one of the traits that predicts need for affiliation (Donavan et al., 2005). Sports marketers have a unique opportunity to increase consumer spending on sports events and merchandise by focusing on specific personality traits of fans. As an example, advertisements that focus on excitement may "…stimulate the need for arousal in spectators" (Donavan et al., 2005, p. 40). Individuals have a desired level of stimulation, and when their actual level falls below what they desire, they will seek out opportunities to raise the level of stimulation, often by seeking social interaction (Mowen, 2000). Since the need for arousal may be satisfied by social interaction, we propose the following hypothesis:

H3: The need for arousal will be positively related to need for affiliation.

Agreeability

Agreeableness, or likability, which also includes pleasantness in some personality research "…contrasts traits such as kindness, trust, and warmth with such traits as hostility, selfishness, and distrust" (Goldberg, 1993, p. 28). Several other traits associated with agreeableness include being flexible, courteous, good-natured, cooperative and tolerant, as well as being soft-hearted and forgiving (Barrick & Mount, 1991). When the personality traits of being cooperative, trusting and agreeable are strongly associated with individuals, they are said to be high in agreeability, and thus have a need to get along with others. Since agreeable individuals tend to be courteous, flexible, forgiving and tolerant, Barrick and Mount (1991) posit that this inner drive to get along with others clearly relates to one's need for affiliation, therefore we propose the following hypothesis:

H4: Agreeability will be positively related to need for affiliation.

Material Needs

A material need is "the need to collect and possess material goods" (Mowen, 2000, p. 29), although materialism is thought to involve much more than collecting or seeking tangible goods. Holt (1995) suggests that a better representation of materialism may not be what is consumed, but more likely how one consumes the good or service. When consumers seek highly prestigious items, like a Rolex watch or tickets to a highly rated sporting event such as a national college football championship game, or even the Super Bowl, this reasoning suggests that the "…seeking of tangible or intangible items describes materialism" (Donavan et al., 2005, p. 35). Following Holt's (1995) reasoning, a form of materialism may also be illustrated by relationships. Thus, seeking social interactions through group membership can be defined as materialistic. This discussion leads to the following hypothesis:

> H5: Material needs will be positively related to need for affiliation.

Conscientiousness

The "Big Five" personality traits constructed by Goldberg (1993) reflect the "…relatively enduring, automatic patterns of thoughts, feelings, and behaviors that differentiate people from one another and that are elicited in trait-evoking situations" (Magidson, Roberts, Collado-Rodriguez, & Lejuez, 2014, p. 1443). Conscientiousness, one of the "Big Five," is defined as a "spectrum of constructs that describe individual differences in the propensity to be self-controlled, responsible to others, hardworking, orderly, and rule abiding" (B. Roberts, Jackson, Fayard, Edmonds, & Meints, 2009, p. 369). The higher the ratings earned on the conscientiousness construct, the higher the level of conscientiousness.

While an individual's thoughts, feelings, and behaviors help determine the level of conscientiousness, it is thought that conscientiousness shapes "…how people experience, interpret, and hence respond and behave in the social world" (Roberts et al., 2009, p. 371). Traditionally it was expected that 80 to 90% of the conscientiousness trait was inherited; in other words, passed to the individual through genetics. However, a study by Krueger and Johnson (2008) claims only 40 to 50% of conscientiousness-related traits are inherited. Instead, it appears that the majority of the variance in conscientiousness is attributed to environmental influences (2008). This is important to note as it relates to organizational identification, social behavior and social functioning.

Roberts, Chernyshenko, Stark, and Goldberg (2005) demonstrate that measures of conscientiousness have shown a variety of outcomes related to adaptive social functioning, which is defined as "the ability to construct representations of the relations between oneself and others, and to use those representations flexibly to guide social behavior" (Adolphs, 2001, p. 231). Therefore, conscientiousness allows individuals to adapt their behavior to successfully affiliate with a group, thus creating and maintaining social relationships.

Research focused directly on identification with or an attachment to a sports team suggests that college football teams are symbolic representations of a community and therefore offer individuals a sense of belonging to the community (Anderson & Stone, 1981; Wann & Branscombe, 1993). Among the common antecedents of selecting a favorite football team are family socialization and geography. Many college football fans share geographic proximity with their favorite team, "…either by growing up near a campus with a team, currently living nearby it, and/or attending the school, although not all proximal sport consumers necessarily identify with the team" (Keaton, Watanabe, & Gearhart, 2015, p. 45).

Division 1 football fans "gain a sense of empowerment and increase their self-esteem by being associated with this level of competition" (Robinson, Trail, Dick, & Gillentine, 2005, p. 50). Fans at the Division I level in particular "are motivated to attend in order to live vicariously through the achievements of their favorite football team" (Robinson et al., 2005, p. 49). The attachment that a person has with a university or team, also known as organization identification, is highest in Division 1-A football (Yoder, 2011). This attachment and affiliation with another person or group can create an atmosphere of belonging and love, meeting the social needs of sports fans as identified in Maslow's Hierarchy of Needs (1943).

Affiliation creates a sense of connection as one becomes attached to an organization. Individuals who demonstrate a strong desire for affiliation tend to be supportive team members, which can result in a sense of satisfaction and achievement. The desire for affiliation may be the product of socialization as discussed above; however, as one element of personality, conscientiousness will also influence behavior and thus the desire to affiliate with a sports team. This discussion leads to the hypothesis that:

> *H6: Conscientiousness will be positively related to need for affiliation.*

RESEARCH METHOD

A survey methodology was utilized to test our research model. Prior to conducting the main study, we held pilot surveys. Of the 20 participants in the pilot, one problem with a question's wording was reported and thereby adjusted. Four-hundred eight respondents completed the online survey. Nine responses were eliminated due to excessive missing responses, leaving a sample of 399. The survey questionnaire was sent to students enrolled in upper and lower division business courses at a public Southeastern university in the U.S. The demographic information about the group of survey respondents is reported in Appendix A.

The constructs of *need for affiliation* (AF), *agreeability* (AG), *conscientiousness* (CS), *extraversion* (EV), *need for arousal* (EX), *identification* (ID), and *material needs* (MR) were operationalized as reflective constructs by adapting items from previously validated survey instruments (see Appendix B). All of the latent variable indicators were measured using seven-point Likert scales anchored from "strongly disagree" to "strongly agree." We included gender, age, and income as control variables.

Data Analysis and Results

Partial least squares (PLS) was used to analyze the survey data to test the direct effects of the main model and interaction terms with the control variables. Following Chin, Marcolin, and Newsted (2003), PLS is useful for testing moderation and is capable of modeling indirect effects. We first tested for measurement validity of the instrument, followed by testing the hypotheses.

Measurement Validity

Three types of validity were assessed to validate our measurement model: content validity, discriminant validity, and convergent validity (Joseph F Hair, Black, Babin, Anderson, & Tatham, 2006). *Content validity* was achieved by adapting established items used in previous studies. Table 1 shows the loadings, cross-loadings, and Cronbach Alphas for each of the measurement items. Three items were dropped due to low factor loadings: conscientiousness (CS1 = -.153 and CS3 = .396) and agreeability (AG1 = .555). An additional agreeability item, AG2, was removed due to low Cronbach's Alpha (< .7). We assessed *discriminant validity* by evaluating whether (1) the square root of each factor's average vaiance extracted (AVE) is higher than its correlations with other factors and (2) an indicator has a higher loading on its anticipated factor than on the others (Straub, Boudreau, & Gefen, 2004). As seen in Table 1 and Table 2, the provisions are met, establishing discriminant validity (Hair et al., 2006). To test c*onvergent validity*, we assessed the AVE, Cronbach's Alpha (Alpha), and composite reliability (CR). All AVE values and Alphas are greater than the acceptable threshold of 0.5 and 0.7, respectively (Straub et al., 2004), so convergent validity is confirmed. Additionally, all composite reliability scores are larger than 0.6, thus high levels of internal consistency reliability have been achieved (Hair, Sarstedt, Ringle, & Mena, 2012).

TABLE 1
LOADINGS, CROSS-LOADINGS, and CRONBACH ALPHAS

Construct		AF	AG	CS	EV	EX	ID	MR
Need for Affiliation (AF) **(Alpha = .771)**	AF1	**.822**	.156	-.075	-.252	.151	.179	.239
	AF2	**.790**	.141	-.041	-.060	.140	.215	.324
	AF3	**.768**	.171	.019	-.070	.156	.291	.218
	AF4	**.699**	.101	-.089	-.107	.213	.201	.212
Agreeability (AG)	AG3	.186	Single Item Construct	.126	-.092	.037	.065	.028
Conscientiousness (CS)	CS2	-.059	.126	Single Item Construct	-.052	.027	.039	.033
Extraversion (EV) **(Alpha = .805)**	EV1	-.137	-.097	-.032	**.878**	-.135	-.120	.072
	EV2	.168	-.077	-.056	**.903**	-.021	-.002	.036
	EV3	-.058	-.048	-.044	**.723**	.007	.018	.194
Need for Arousal (EX) **(Alpha = .833)**	EX1	.086	-.023	-.071	.041	**.813**	.116	.131
	EX2	.226	.007	.044	-.074	**.901**	.212	.331
	EX3	.178	.090	.043	-.089	**.858**	.220	.191
Identification (ID) **(Alpha = .927)**	ID1	.154	.096	.008	.091	.145	**.708**	.216
	ID2	.235	.115	.049	.138	.226	**.593**	.207
	ID3	.246	.136	.006	-105	.119	**.745**	.025
	ID4	.253	.032	.005	-.064	.254	**.826**	.177
	ID5	.230	.049	.074	-.106	.146	**.864**	-.012
	ID6	.248	-.024	.021	-.100	.204	**.721**	.105
	ID7	.146	.020	-.025	-.053	.075	**.729**	.010
	ID8	.122	.045	.079	-.148	.117	**.803**	-.062
	ID9	.122	.022	.059	-.042	.191	**.849**	-.062
	ID10	.286	.034	.035	-.009	.207	**.908**	.135
Material Needs (MR) **(Alpha = .834)**	MR1	.203	.057	.037	.051	.178	.091	**.720**
	MR2	.296	.011	.048	.012	.194	.064	**.871**
	MR3	.310	-.024	-.042	.155	.239	.144	**.845**
	MR4	.225	.074	.087	.052	.323	.109	**.821**

TABLE 2
MEANS, STANDARD DEVIATIONS, COMPOSITE RELIABILITIES, CORRELATIONS, AND AVE

	Mean	SD	CR	AF	AG	CS	EV	EX	ID	MR
1.AF	3.10	1.17	.854	**.771**						
2.AG	1.90	.94	1	.182**	**1**					
3.CS	2.28	1.16	1	-.065	.126*	**1**				
4.EV	4.68	1.53	.876	-.143**	-.088	-.051	**.838**			
5.EX	3.65	1.51	.893	.194**	.027	.003	-.040	**.858**		
6.ID	3.15	1.49	.939	.270**	.064	.039	-.044	.197**	**.780**	
7.MR	3.52	1.44	.888	.313**	.036	.039	.113*	.263**	.118*	**.816**

Notes: 1. CR: Composite Reliability; AF: Affiliation; AG: Agreeability; CS: Conscientiousness;
   EV: Extraversion; EX: Arousal (Excitement); ID: Identification; MR: Material Needs.
   2. *p < 0.05; **p < 0.01 (two-tailed); all other correlations are insignificant.
   3. Diagonal elements are the square root of average variance extracted (AVE).

Results of Hypothesis Testing

Hypotheses testing results may be seen in Table 3. The results indicate that for the dependent variable *identification*, the effect of *need for affiliation* (H1) is significant. For the dependent variable of need for *affiliation, extraversion* (H2), *arousal* (H3), *agreeability* (H4), and *material needs* (H5) are

significant, while *conscientiousness* (H6) is partially supported. That is, conscientiousness demonstrated significance with the main effects only but loses significance when controls and interactions are added to the model. The model explained 12.5 percent of the variance in identification and 24.3 percent for need for affiliation. Also, age affects identification and need for affiliation in the controls-only results (models 1 and 4). The other control variables, gender and income, were not found to have significant direct effects on either identification or need for affiliation; however, the interaction of material needs and gender affects need for affiliation. The remaining interactions with control variables were not found to be significant.

TABLE 3
STRUCTURAL MODEL RESULTS

Variables Entered	1	2	3	Result	4	5	6	Result
	DV: Need for Affiliation				DV: Identification			
Controls								
Gender (GDR)	-.021		-.001	N.S.	-.061			N.S.
Age (AGE)	.172**		.065	Partially Significant	-.178**			Partially Significant
Income (INC)	-.067		-.024	N.S.	-.063			N.S.
Main Effects								
Affiliation (AF)						.287**	.286**	**H1 supported**
Extraversion (EV)		.169**	.192**	**H2 supported**		.048**		Significant
Arousal (Excitement) (EX)		.111*	.116*	**H3 supported**		.032		N.S.
Agreeability (AG)		.171**	.130*	**H4 supported**		.049**		Significant
Material Needs (MR)		.306**	.268**	**H5 supported**		.088**		Significant
Conscientiousness (CS)		-.103*	-.093	**H6 partially supported**		-.03		N.S.
Interaction Effect								
EV x GDR			-.025	N.S.				
EX x GDR			.123	N.S.				
AG x GDR			-.164	N.S.				
MR x GDR			-.149*	Significant				
CS x GDR			.140	N.S.				
EV x AGE			.010	N.S.				
EX x AGE			-.046	N.S.				
AG x AGE			.010	N.S.				
MR x AGE			.035	N.S.				
CS x AGE			-.004	N.S.				
EV x INC			-.015	N.S.				
EX x INC			-.002	N.S.				
AG x INC			.005	N.S.				
MR x INC			-.014	N.S.				
CS x INC			.020	N.S.				
R^2	.027	.188**	.243**		.048**	.082**	.125**	

*$p < 0.05$; **$p < 0.01$ (two-tailed)

Notes:
Models 1 and 4 are controls only; models 2 and 5 are with main effects only; model 3 includes controls, main effects, and interaction effects as well.

Post Hoc Analysis

We post hoc tested the amount of variance associated with identification among teams. The results measure how strongly the fan bases identified with their favorite team. The lower the mean, the stronger the identification. As shown in Table 4, Auburn fans scored the highest on team identification. Although the results are interesting, they must be interpreted with caution as the sample sizes vary greatly among teams.

TABLE 4
POST HOC TEST OF IDENTIFICATION BY TEAM

SEC Football Team	N	Mean	Standard Deviation
Auburn Tigers	128	2.72	1.24
Arkansas Razorbacks	3	3.00	1.61
South Carolina Gamecocks	4	3.08	1.74
Florida Gators	36	3.08	1.55
Kentucky Wildcats	5	3.14	1.16
Alabama Crimson Tide	144	3.28	1.51
Tennessee Volunteers	5	3.38	1.77
Mississippi State Bulldogs	6	3.38	1.27
Ole Miss Rebels	7	3.44	1.52
Georgia Bulldogs	26	3.62	1.75
LSU Tigers	10	3.64	1.54
Texas A&M Aggies	11	3.87	1.79
Vanderbilt Commodores	2	4.45	3.61
Missouri Tigers	2	6.55	0.21

DISCUSSION

Our model was almost completely validated with five of the six hypotheses fully supported and the final hypothesis partially supported. That is, higher levels of sport team identification are associated with an individual's stronger need for affiliation. Our findings further indicate higher levels of extraversion, arousal, agreeability, and material needs are associated with a greater need for affiliation. Material needs was the only variable that had a significant interaction effect with a control variable. In other words, the effect of need for material resources on the need for affiliation was stronger for males than for females. The impact of conscientiousness is partially supported in that the effect on need for affiliation was significant but in the opposite direction. Specifically, lower levels of conscientiousness were associated with higher levels of need for affiliation. The effect size, however, was modest, and when controls were added to the model, the relationship became insignificant. A potential reason for this finding is that individuals with lower levels of conscientiousness, e.g., less organized and precise, may have a greater need to anchor to an outside group to fulfill that void.

LIMITATIONS AND FUTURE RESEARCH

Generalizations of the results of this research study should take into consideration its limitations. First, the findings of this study are based on cross-sectional survey data. Thus, we did not examine the change of SEC sport fan identification when teams transition from losing seasons to winning seasons. While this study reveals significant differences in need for affiliation and strength of identification among various fan personality traits, future research could capture longitudinal data to measure the transition of need for affiliation and strength of identification over time. A second limitation is the lack of empirical data relating identification to the purchase of sports-licensed merchandise and stadium ticket sales. We do, however, view the exploration of the relationship between sport fan identification and the amount of revenue generated by the team's athletic department as an opportunity for future research. The economic impact of sports has emerged as a dominant topic of interest among researchers (Milano & Chelladurai, 2011). An examination of brand personality literature as it relates to sports teams indicates "…consumers build an affinity with brands, or in this case teams, whose image is congruent with their own personality." Consumers also "…affiliate with and become attached to organizations they feel emulate and share their values" (Pritchard, Stinson, & Patton, 2010, p. 67). Athletic departments of major college programs capitalize on their fans' identification with a team through the sale of licensed sports-related apparel (Robinson et al., 2005). An essential tenet of the marketing concept is an understanding of consumers. Their motivations "are an important determinant of sport consumer behavior" (McDonald, Milne, & Hong, 2002, p. 110).

Social identity is a "…mechanism for tapping the emotional connection between the consumer and the service brand" (Underwood, Bond, & Baer, 2001, p. 2), and strong service brands are developed by making an emotional connection with consumers. The relationship between social identity and brand equity is best illustrated by "…one high commitment and high involvement industry—sports" (Underwood et al., 2001, p. 2). The right mix of brand image and organizational values builds brand equity. Sports fans often see products, such as sports apparel of their favorite team, as an extension of themselves. Successful sports entities are able to cultivate a distinct brand image and profit from the highly charged emotional connection fans make to their teams (2001).

When the emotional attachment of fans is high, the resulting investment in products has been found to be even stronger (Dwyer, Mudrick, Greenhalgh, LeCrom, & Drayer, 2015). The attractiveness of a team's image and identification with the team is not exclusively determined by team performance or win/loss records, which could be of importance to marketers of team-related apparel and products. The core fans of particular sports teams make up most of their sports market, and their loyalty and emotion for their team is a powerful sales driver. A winning season would result in more team-related product purchases from the core fans and perhaps attract even more casual fans, but the demand for team-related products is continuous (Heitner, 2014). Although we do not empirically test the relationship between the strength of fan identification with a sports team and the amount of revenue generated by the team's athletic department, we do suggest this as an avenue for further research.

CONTRIBUTIONS

The link between social identity and subsequent financial contributions is vital for organizations that depend upon member support, and it is especially important to universities with college sports teams. For a school like the SEC's University of Alabama, one of the nation's most recognized football universities, reports in 2014 indicated that their athletic revenues "exceeded all of the 30 NHL teams and 25 of the 30 NBA teams" (Hinnen, 2014). More financial success likely generates greater fan attendance and loyalty, and it should lead to securing more highly recruited athletes, which can help continue the cycle of success, especially on the football field.

Previous conceptual work (Sutton, McDonald, Milne, & Cimperman, 1997) suggests that highly identified fans may be less affected by winning and losing seasons in terms of spending their money on sports-related items. However, opportunities are there for organizations to create awareness, reinforce team tradition, and increase sponsorship among less identified fans. Positive associations with sport teams could create opportunities for fans to feel more affiliated, especially when accessibility to the team is increased. Events such as autograph and picture sessions, youth sport clinics that feature popular current and former team players, and other community involvement activities make the team and players more accessible to the public. Providing evidence of how sponsorship and donations may enhance opportunities for university athletes and students, such as dedicating certain ticket sales to scholarships, could also be particularly effective among some sports fans.

CONCLUSIONS

The results reveal the impact and effects of how extraversion, conscientiousness, arousal, agreeability, and material needs impact the affiliation of highly identified/highly attached SEC college football fans. The research findings can be used to assist college football marketing programs with regard to enhancing loyalty and improving the experience of sports fans who already strongly identify with their favorite team. Understanding how strongly a fan identifies with his or her team and the reasons behind this bond allows for the creation of more purposeful marketing programs that focus on increasing fan loyalty. Focusing on the significant personality traits identified in the findings can provide insight into how to improve consumptive behavior, especially of team-related products, even when a winning season may be beyond reach.

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APPENDIX A
DEMOGRAPHICS OF RESPONDENTS

Demographic Variables			Frequency	Percent
Gender	1	Male	147	36.8%
	2	Female	239	59.9%
Age	1	18-29	209	52.4%
	2	30-39	58	14.5%
	3	40-49	67	16.8%
	4	50-59	29	7.3%
	5	60+	24	6.0%
Income	1	$0-$24,999	83	20.8%
	2	$25,000-$49,999	62	15.5%
	3	$50,000-$74,999	49	12.3%
	4	$75,000-$99,999	53	13.3%
	5	$100,000-$124,999	43	10.8%
	6	$125,000-$149,999	26	6.5%
	7	$150,000-$174,999	20	5.0%
	8	$175,000-$199,999	9	2.3%
	9	$200,000 and up	32	8.0%

APPENDIX B
OPERATIONALIZATION OF CONSTRUCTS

Apart from FT1, DM1, DM2, and DM3, all items were adapted from

Donavan, Carlson, and Zimmerman (2005)

Construct	Identifier	Measure
Need for Affiliation	AF1	I tend to enjoy being part of groups
	AF2	Group membership is rewarding to me
	AF3	I feel more alive when I am part of a cohesive group
	AF4	I'd rather work in groups than by myself
Agreeability	AG1	I am tenderhearted
	AG2	I am sympathetic
	AG3	I go out of my way to help others
Conscientiousness	CS1	I am orderly
	CS2	I am precise
	CS3	I am organized
Extraversion	EV1	I am shy
	EV2	I am quiet when with people
	EV3	I am bashful when with people
Need for Arousal (Excitement)	EX1	I am drawn to experiences with an element of danger
	EX2	I seek an adrenaline rush
	EX3	I enjoy taking risks more than others
Identification	ID1	When someone criticizes XYZ football, I take it personally
	ID2	I am very interested in what others think about XYZ football
	ID3	When I talk about XYZ football, I usually say "we" rather than "they"
	ID4	It is very important to me that XYZ football wins
	ID5	I see myself as a big fan of XYZ football
	ID6	I strongly dislike XYZ football's biggest rivals

Construct	Identifier	Measure
	ID7	I display XYZ football's name or insignia at my place of work, home, clothing and/or vehicle
	ID8	I consider myself to be a "real" fan of the XYZ football team
	ID9	I would experience a loss if I had to stop being a fan of the football team
	ID10	Being a fan of the XYZ football team is very important to me
	ID11	I am a fan of XYZ football team. (Single selection drop down box will include all SEC teams)
Material Needs	MR1	I enjoy buying expensive things
	MR2	I enjoy owning luxurious things
	MR3	Acquiring valuable things is important to me
	MR4	I like to own nice things more than most people
Football Team	FT1	What is your favorite SEC college football team?
Demographics	DM1	What is your gender?
	DM2	What is your age?
	DM3	My average annual household income is: