

A LONGITUDINAL ANALYSIS OF THE EFFECTS OF CONFERENCE REALIGNMENT
ON COLLEGE FOOTBALL BRAND EQUITY

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A DISSERTAION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the Department of Educational Leadership,
Policy, and Technology Studies
in the Graduate School of
The University of Alabama

TUSCALOOSA, ALABAMA

2014

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ABSTRACT

The purpose of this study was to develop a football brand equity measurement to determine changes in football brand equity for stable and migrating conference members in Division I football. This study included a total of 206 football teams participating in NCAA Division I football subdivisions that included 108 teams from the Football Bowl Subdivision (FBS) and 98 football teams from the Football Championship Subdivision (FCS). A longitudinal analysis design found that football brand equity changed in an upward trend over time from 2003 through 2012 for both FBS stable and FBS migrating football teams, whereas the trend for FCS stable and FCS migrating football teams was inconsistent over the same period of time. Repeated measures ANOVA were conducted and found that there was not a statistically significant difference in football brand equity between FBS stable and FBS migrating football teams. However, there was a statistically significant difference between FCS stable and FCS migrating football teams' brand equity.

DEDICATION

This work is dedicated to my Dad, Charles R. Carr, who continues to inspire me every single day.

LIST OF ABBREVIATIONS AND SYMBOLS

ε	Estimates of sphericity
M	Mean: the sum of a set of measurements divided by the number of measurements in the set
N	Population size
p	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
χ^2	Bartlett's Test of Sphericity
$>$	Greater than
$<$	Less than
$=$	Equal to
$\%$	Percent

ACKNOWLEDGMENTS

I am deeply grateful for the encouragement of my friends and fellow cohort members who supported me throughout this adventure. In addition, I offer my sincere thanks to my committee members, especially Dr. Nathaniel Bray, who guided me along the way. I would also like to thank my family and friends for their encouragement and support. I could not have done any of this without everyone cheering me on. I am more than thankful.

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CHAPTER 1

INTRODUCTION

As a multi-billion dollar enterprise and one of America's most beloved traditions, the institution of college football is an established cultural and financial phenomenon (Clotfelter, 2011; Dennie, 2012; Nocera, 2012; Smith, 2012). In 2011 alone, a record breaking 48,958,547 fans swarmed college and university campuses to partake in the pageantry and fanfare of American college football (National Collegiate Athletic Association [NCAA], 2014). Furthermore, in the 2011-12 fiscal year, the National Collegiate Athletic Association (NCAA) generated \$871.6 million in revenue ("Revenue," 2014). Not surprisingly, a college or university's football team, as well as their conference membership, often constitutes a significant part of the institution's overall image (Anderson, 2012; Clotfelter, 2011; Lee, Miloch, Kraft, & Tatum, 2008; Lovaglia & Lucas, 2005; Pope & Pope, 2009; Roy, Graeff, & Harmon, 2008).

Conference realignment is an ongoing trend that will likely continue for years to come (Leibovitz, 2012). For instance, between 2011 and 2013, nearly one-fourth of the NCAA college football programs in the Football Bowl Subdivision (FBS) changed conference memberships and many programs are slated to change conferences in 2014 and beyond (Campbell, 2014; Chi, 2012; Myerberg, 2012). When football programs change conference membership, one conference expands and another conference contracts. Shifts in conference membership create a ripple effect of conference reorganization that can be seen throughout the college football landscape (Leibovitz, 2012). For example, in 2014, the University of Louisville Cardinals and the Rutgers University Scarlet Knights both left the newly formed American Athletic

Conference; the American Athletic Conference will replace this loss with the addition of the University of Tulsa Hurricanes, the Tulane University Green Wave, and the East Carolina University Pirates from Conference-USA (Campbell, 2014; Hinnen, 2012). In turn, the University of Western Kentucky Hilltoppers will leave the Sun Belt Conference to join Conference-USA (Hinnen, 2012). This example demonstrates the domino effect of conference realignment throughout the FBS. The following section will detail pertinent background information for this study.

Background

This study seeks to develop a measure of college football brand equity, and to explore how college football brand equity might change for both stable and migrating conference members in the context of conference realignment. The conference members in this study are from the Division I Football Bowl Subdivision (FBS) and the Football Championship Subdivision (FCS), both of which are in the highest and most competitive levels of competition in the NCAA (“Division I,” 2014). Although the FBS and FCS have some independent members, the majority of college football teams in these two subdivisions are organized within conferences, all of which have been affected by conference realignment in recent years (Myerberg, 2012).

Historically, conferences typically unite institutions that have similar intercollegiate athletic programs and academic aspirations, providing a unified geographically related identity for conference members (Weiner, 2011). For instance, the Big Ten conference is composed primarily of leading public flagship institutions in the Midwest and is known for having top academic and football programs such as the Ohio State University, Pennsylvania State University, and the University of Wisconsin. Being a member of the Big Ten creates a sense of

legitimacy and establishes a brand image and identity for conference members (Brown, 2011).

The Southeastern Conference (SEC) is known as a powerhouse football conference, as evidenced by the seven consecutive FBS national championships earned by SEC members from 2003 to 2007 (Bowl Championship Series [BCS], 2013; Finebaum, 2014). The Ivy League is composed of eight private institutions that are considered among the best universities worldwide and that have common academic and athletic expectations (Thelin, 1994).

Football programs engage in conference realignment for numerous reasons that include a wide range of scenarios and motivations for change. One reason for changing conference membership is to pursue membership in a more competitive and financially lucrative conference (Groza, 2014; Kramer & Trivette, 2012). While changing conferences might end traditional rivalries, such as the Lone Star Showdown between Texas A&M University and the University of Texas, conference realignment may also expose the college or university to new markets and increase visibility (Brown, 2011; Dennie, 2012). Toma and Cross (1998) referred to intercollegiate athletics, especially football, as a college or university's "front porch" because people who would not otherwise visit campus might be introduced to the institution through game attendance or television advertising (p. 633). In this way, game day and related activities provide free advertising to promote the college or university (Fisher, 2009).

Another reason for changing conference membership is because a football team's current conference is discontinuing competition in college football (McMurhpy & Katz, 2013). For example, the Western Athletic Conference (WAC) no longer participates in football competition because of the loss of conference members and the conference's inability to replenish the conference with viable members (Bullinger, 2012). In 1999, the WAC had 16 conference members participating in football ("History of the WAC," 2014). Since then, the conference has

gained and lost 24 members (Kubatko, 2014). In 2012, the WAC competed in the FBS with only seven teams in the conference (Kubatko, 2014). As of July 1, 2013, the turbulent conference no longer competes in football due to the conference's inability to obtain new members (Bullinger, 2012). The discontinuation of college football in the WAC created hardships for remaining conference members. For example, the University of Idaho Vandals and the New Mexico State Aggies were forced to make a decision between finding a new conference to join, becoming independent, or, if they planned to remain members of the WAC, discontinuing participation in football altogether (Bullinger, 2012). Currently, the Idaho Vandals and the New Mexico State Aggies are members of the Sun Belt Conference, whose members participate in football (McMurphy, 2013). The interim WAC conference commissioner stated that many colleges and universities left the WAC in pursuit of membership in more prestigious conferences that could offer greater exposure and financial benefits, making the WAC a testament to the potential negative repercussions of pervasive conference realignment on the institution of college football itself (Bullinger, 2012).

Football teams may also change conferences in order to associate with a particular conference's brand image (Brown, 2011). For example, when Texas A&M University joined the Southeastern Conference (SEC) in 2012, a significant part of the university's marketing strategy was to co-brand Texas A&M University brand with the SEC brand and declare the state of Texas as "SEC Country" (Collier, 2013, p. 104). Joining the SEC provided an opportunity for Texas A&M to receive increased national exposure and compete with many in-conference top 20 football programs (Smith, 2012). This example demonstrates how strategic marketing of an institution's football team and conference membership may represent a viable means of securing an advantage in today's competitive higher education market (Sperber, 2000).

College or university football programs might also engage in conference realignment in pursuit of increased prestige (Sweitzer, 2009). For example, when the University of Utah joined the current Pacific Atlantic Conference (PAC-10) in 2011, President Emeritus Gardner issued the following statement:

The invitation extended to the [University of Utah] to join the Pac-10 is the most recent evidence of... a tangible expression of regard by other distinguished universities of the success and accomplishments of the state's public university. The U's Pac-10 affiliation is based on more than athletic prowess; it is also an affirmation by the Pac-10 universities of the University of Utah's standing as a leading American university. ("University of Utah," para. 3)

In another example, when Texas Christian University (TCU) joined the Big 12 Conference in 2012, TCU's Chancellor Boschini, Jr., stated that TCU's move to the Big 12 Conference linked TCU to other schools that shared common values in sports as well as in academics (Smith, 2011).

In addition to increased prestige, some football programs change conference membership in pursuit of greater football competition, which often comes with benefits such as increased overall institutional prestige and exposure, as well as guaranteed revenue from television contracts (Myerberg, 2012; Schlabach, 2013). For instance, after Texas A&M University joined the SEC in 2012, the football team and university have received a considerable increase in national recognition (Schroeder, 2013). Jason Cook, Senior Associate Athletics Director at Texas A&M University, stated that the move to the SEC gave the university a "bigger stage to tell our story" and was part of an "intentional effort to define the brand" (Collier, 2013, p. 103). During their first year in the SEC, the Texas A&M University Aggies received increased national exposure by finishing the season with eleven wins and two losses; further, their quarterback, Johnny Manziel, won the prestigious Heisman Trophy as the nation's top college football player after they defeated the number one ranked Alabama Crimson Tide in Tuscaloosa,

Alabama (“College Football Standings,” 2014; “Heisman Trophy,” 2014). Additionally, the launch of the SEC Network was the largest of any new sports network in cable television history (Herndon, 2014). Each of these accomplishments increased the overall visibility of the Texas A&M University brand. As Cook asked (in Collier, 2013), “Where else can you have an average of 4.5 million people on a Saturday afternoon in the fall view a three-and-a-half hour commercial about your university?” (p. 103). Clearly, in order to procure the most advantageous stance in the market, administrators of higher education should be well versed in the complexities and implications of conference realignment, as it affects not only the landscape of college football, but the institutions themselves, as well.

Statement of the Problem

A significant body of research has indicated a correlation between college football success and various benefits received by a football program’s college or university (Goidel & Hamilton, 2006; Kelly & Dixon, 2011; Kramer & Trivette, 2012; Lovaglia & Lucas, 2005; McCormick & Tinsley, 1987; McEvoy, 2005, 2006; Mixon & Treviño, 2005; Murphy & Trandel, 1994; Pope & Pope, 2009; Price & Sen, 2003; Roy, Graeff, & Harmon, 2008; Trenkamp, 2009; Tucker, 2005). Furthermore, additional studies have found that conference membership can significantly influence a football team’s level of success, which, in turn, influences the institutional benefits received by the team’s college or university (Groza, 2010; Kramer & Trivette, 2012; Rhoads, 2004; Weiner, 2011).

There are many different means to measure a football teams’ success. However, this study will examine football success through the lens of football brand equity based on the Gladden, Sutton, and Milne (1998) intercollegiate athletics brand equity conceptual framework. The Gladden et al. (1998) framework posits product-, organization-, and market-related antecedents that contribute to

brand equity. The resulting brand equity then generates consequences that feed into marketplace perception, which, in turn, travel through a feedback loop.

This study will use the concept of football brand equity to examine how pervasive realignment among conference members might affect an individual football teams' brand equity. Understanding football brand equity is important for decision makers at universities because alterations in college football brand equity could affect the benefits received by the program's institution. This study will specifically explore change in college football brand equity for stable and migrating conference members.

A football team's conference membership is significant for numerous reasons (Sweitzer, 2009). First, conference members typically have commonalities among them that create a competitive peer group for football games on the field and academic prestige off the field (Brown, 2011). Additionally, football teams play the majority of their games against other in-conference football teams ("College Football Standings," 2014). The level of competition and success of other conference members can either help or hinder a team's overall success and ability to be highly ranked and participate in top post-season bowl games ("College Football Standings," 2014). Furthermore, conferences have traditional rivalries, such as the Backyard Brawl between the University of Pittsburgh and West Virginia University, which generate heightened competition and fan enthusiasm (Dennie, 2012). Lastly, conference membership matters because there is a great financial divide among the conferences (Schroeder, 2012). Currently, there are ten conferences in the NCAA FBS: six of the conferences are considered automatic qualifying (AQ) conferences and four are non-AQ conferences ("College Football Standings," 2014). AQ conference champions are guaranteed to compete in one of the elite six BCS post-season bowl games, an opportunity that generates significant revenue and increased institutional exposure (Caro & Benton, 2012).

Again, the primary issue investigated in this study will be to determine how college football brand equity changes for stable and migrating conference members in the context of conference realignment. For instance, when a team changes conference membership, other teams and conference members might experience a positive or negative shift in the perceived quality of the team's brand (Gladden et al., 1998). Further, other teams and conference members' perceived quality of the conference that the team left and the perceived quality of the conference that the team joined might also be affected (Moyer, 2014). Additionally, an even subtler, but equally significant shift might also occur in the perceived quality of all teams that are associated with each of these conferences (Horne, 2013). Whether administrators in higher education are planning on changing conference membership or if their current conference is experiencing member changes, understanding the effects of conference realignment is important. Membership in a conference can either enhance or diminish a football team's success and, in return, influence the benefits that a college or university receives from its football team (Anderson, 2012; Rhoads, 2004; Weiner, 2011).

Purpose of the Study

As the "front porch" to colleges and universities, college football can provide exposure and benefits to institutions of higher education that extend beyond the playing field (Toma, 2010). In fact, Roy et al. (2008) found in their empirical study of realigning a college or university's football team that "awareness and positive perceptions of a university's athletic teams might be able to translate into an enhanced academic image for the overall university" (p. 28). Therefore, the purpose of this research was twofold: to develop a measure of college football brand equity, and to examine how college football brand equity might change for stable and migrating football teams in the context of conference realignment.

College football programs and conference membership are also part of a college or university's brand image or prestige, making conference membership particularly relevant to a college or university's athletic and academic success (Brown, 2011). Although there is considerable research on the topic of college football, very few studies have focused on changes in conference membership (Anderson, 2012; Groza, 2010; Kramer & Trivette, 2012; Weiner, 2011). To date, only minimal empirical research exists on how changes in conference membership might affect college football brand equity, especially for conference members that remain stable in a single conference (Groza, 2010).

Conclusion

This study creates a distinctive opportunity to explore how conference realignment might affect college football brand equity in the context of conference realignment. Chapter 2 covers the historical and organizational context for the research, delineates this study's conceptual framework, and reviews the empirical literature supporting the argument and justification for this study. Chapter 3 describes the methodology for this study.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter focuses on several different areas of literature that support and justify this study. The literature shows that college football is a complex and intricate part of higher education that is worthy of attention. Although some research studies have investigated the effects of conference realignment on teams that migrate to new conferences (Anderson 2012; Groza, 2010; Kramer & Trivette, 2012; Weiner, 2011), Groza (2010) suggested that further research is needed to determine how conference realignment might affect teams that remain stable in an evolving conference. Accordingly, this study will examine how college football brand equity changes for stable and migrating conference members within the context of conference realignment, in order to explore possible correlations between college football brand equity and the stable/migrating status of individual conference members.

Chapter 2 reviews the literature related to the major facets of this study outlined above and thus is organized in five sections. The first section presents literature on the historical and organizational context of conference realignment in college football. The second section outlines the conceptual framework for this study: brand equity (Aaker, 1991; Gladden et al., 1998). The third section explores the existing literature on competitive balance in college football as it relates to conference reorganization and realignment. The fourth section of this chapter reviews literature on key indicators of college football brand equity, and the fifth section discusses the potential benefits that a college football program with high brand equity can provide its affiliated college or university.

College Football

The following section will provide a brief historical context for this study, along with an overview of the NCAA's current structure, divisions, and conferences.

History

College football constitutes a critical component of higher education because it helps to create and maintain a culture of unity and identity for its constituents (Sperber, 2000). Thelin (1994) traces the beginnings of America's "peculiar institution" of intercollegiate athletics back to 1852 on New Hampshire's Lake Winnepesaukee, where a historic rowing match took place between Harvard and Yale (p. 1). Unbeknownst to these early competitors, the movement of their oars set into motion the beginnings of intercollegiate athletics, an institution that has evolved over time into a multi-billion dollar enterprise (Caro, 2012; Smith, 2012; Thelin, 1994). The birth of American college football soon followed. In 1869, Princeton defeated Rutgers in America's first intercollegiate football game (Rudolph, 1990), although, at that time, college football differed considerably from its modern, highly regulated form. Few rules governed the game; football teams and players often took advantage of this freedom by engaging in brutal plays such as gang tackling to increase their chances of winning the competition (Thelin, 1994). However, when serious injuries and even deaths began to occur as a result of this unregulated play, President Theodore Roosevelt personally intervened with an ultimatum that college football must be either reformed or abolished altogether (Rudolph, 1990).

The National Collegiate Athletic Association (NCAA)

President Roosevelt called for leaders in college athletics to attend two different meetings held at the White House to negotiate changes to the brutal nature of college football ("NCAA," 2014). As the result of these meetings, the Intercollegiate Athletic Association of the United

States (IAAUS) was formed and charged with creating order in college football and establishing safety measures for college football players (“NCAA,” 2014). In 1910, the IAAUS became the NCAA, which continues to serve today as the governing body overseeing intercollegiate athletics in America (“NCAA,” 2014). In modern times, the NCAA’s primary duty is to set guidelines and enforce rules for colleges and universities participating in intercollegiate athletics. The NCAA establishes and manages the overall organizational structure necessary for operations in the big business of college football (“NCAA,” 2014). Although college football is layered with multiple divisions and conferences, the organizational structure of the NCAA serves many purposes. This section explores the structural organization of the NCAA to provide a contextual framework for this study.

Divisions. Essentially, the NCAA is comprised of three divisions: Divisions I, II, and III (“Division I,” 2014; “Division II,” 2014; “Division III,” 2014). Division membership is determined based on several different factors, such as institution size and financial investment in intercollegiate athletics. Additionally, Division I is subdivided into the Football Championship Subdivision (FCS) and the Football Bowl Subdivision (FBS) (“Division I,” 2014). The majority of the literature on college football explores football programs from or topics specifically relevant to Division I FBS football members and conferences. However, in order to acquire a broader understanding of differences in football brand equity, both the FBS and FCS subdivisions will be included in this study.

The primary difference between the two subdivisions of Division I is that FCS’s 122 conference members are typically smaller institutions that lack the facilities or fan base to meet the FBS’s required average attendance of 15,000 per home game (“Division II,” 2014). Another distinct difference between the FCS and the FBS is that, instead of holding post-season bowl

games to determine the FCS national champion, the FCS participates in a 20-team postseason playoff tournament (“FCS Football,” 2014). As the premier subdivision of Division I, the FBS represents the highest level of football competition within the NCAA (“Division I”, 2014). This study will focus on conference realignment in both the FBS and the FCS.

Conferences. NCAA conferences are in place to provide governance, revenue, and competition to intercollegiate athletic programs that are members (Brown, 2011). While the NCAA is the overall governing body, conferences efficiently provide a secondary level of order and support for conference members. Football conferences are typically composed of members with similar athletic and academic goals and reasonably close geographic proximity (Sweitzer, 2009). During the time frame of this study, there were eleven FBS conferences, including the original Big East (instead of the American Athletic Conference) and the WAC.

The FBS consists of two additional classifications: the Bowl Championship Series (BCS) automatic qualifying (AQ) conferences and the BCS non-AQ conferences (“BCS Conferences,” 2013). There are six automatic qualifying (AQ) conferences that are guaranteed to have their conference champion participate in one of the five BCS bowl games (“College Bowls,” 2014). These games include the Rose Bowl, Orange Bowl, Sugar Bowl, Fiesta Bowl, and the BCS National Championship Game (BCS, 2013). The other four conferences are non-AQ conferences; these conferences must compete for an invitation to fill in the remaining two BCS bowl slots, an honor that is accompanied by high financial rewards and increased exposure (“BCS Conferences,” 2013). For example, in 2013, the per team payout for participation in a BCS bowl game was \$17 million (“College Bowl Games,” 2014). Because the researcher selected conferences from the FBS as subjects for this study, the following section provides details on the specific conferences that make up the FBS.

AQ conferences. In 2012, six FBS conferences were considered AQ conferences: the Atlantic Coast Conference (ACC), American Athletic Conference, Big Ten, Big 12, Pacific-12 (PAC-12), and Southeastern Conference (SEC) (“BCS Conferences,” 2013). In 2013, the football teams in the former Big East Conference joined with other schools to become the American Athletic Conference, which will be structured like the former Big East Conference and will inherit the former conference’s AQ status (“American Athletic Conference,” 2014). The FBS AQ conferences include powerhouse football programs such as the University of Alabama’s Crimson Tide, the Ohio State University Buckeyes, the University of Texas’ Longhorns, and the University of Oregon’s Ducks. These “big time” conferences typically have members that rank in the final AP Top 25 and USA Today Coaches’ polls every year (“Amway Coaches Poll,” 2014). AQ conferences also typically generate the most revenue of the FBS conferences and appear consistently in the elite BCS post-season bowl games due to their AQ status (BCS, 2013).

Non-AQ conferences. Football programs in non-AQ conferences typically have lower game day attendance and limited participation in high profile post-season bowl games compared to football members in AQ conference due to lower revenue and a generally less challenging level of competition. In 2013, the non-AQ conferences in the FBS include Conference USA (C-USA), the Mid-American (MAC), the Mountain West (MWC), and the Sun Belt. Until 2013, the Western Athletic Conference (WAC) was a non-AQ FBS conference that experienced significant member realignment (Bullinger, 2012). The inability of the WAC to obtain new conference members that participated in football ultimately led to the conference dropping participation in football after the 2012-13 season (Bullinger, 2012).

Non-AQ conferences generally do not produce enough revenue to cover the cost of their football program expenditure and typically do not automatically receive one of the open bids to

participate in BCS post-season bowl games (Caro & Benton, 2012). Further, few non-AQ football programs manage to obtain BCS bids because of the high level of competition from the more successful and dominant AQ conferences (Myerberg, 2013). There are exceptions to this general rule, however. For instance, Texas Christian University (TCU), a member of the non-AQ Mountain West Conference at the time, received bids to the BCS Fiesta in 2009 and the Rose Bowl in 2010 (“College Bowl Games,” 2014; Mandel, 2011). In 2012, Texas Christian University (TCU) reaped long-term benefits from their success and from participation in these BCS bowl games by becoming a member of the Big 12, which is one of the six AQ conferences (Jessop, 2013).

College Football Playoff

In 2014, the College Football Playoff, a four-team playoff system, will be implemented to determine the college football national champion (“College Football Playoff,” 2014; Smith, 2012). In 2012, ESPN signed a \$7.3 billion contract for the broadcast rights to the College Football Playoff through 2025. The new system will create greater financial rewards for the football teams who participate in the College Football Playoff that has two semi-final games and the championship game (Smith, 2012). The playoff system will provide successful football teams that compete in the College Football Playoff an opportunity to receive even higher revenue than is currently distributed (Schroeder, 2014).

Conceptual Framework

This study will use Gladden, Milne, and Sutton’s (1998) intercollegiate athletics brand equity framework, since the purpose of this study is twofold: to develop a measure of college football brand equity and to examine how college football brand equity might change for stable and migrating football teams in the context of conference realignment. The researcher will use

this framework to identify and investigate key antecedents and consequences of college football brand equity, which will serve as indicators of football brand equity changes for stable and migrating conference members in the context of conference realignment. The first portion of this section will provide an overview of the concept of brand equity according to Aaker (1991).

Brand Equity

Gladden et al.’s (1998) conceptual framework is based on Aaker’s (1991) foundational marketing management concept of brand equity. Aaker established the first and most comprehensive brand equity theoretical framework, defining brand equity as “a set of assets that are linked to a brand, its name and symbol, that add or subtract from the value provided by a product or service” (p. 15). Aaker grouped the assets and liabilities related to brand equity into five categories: brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets (see Figure 1).

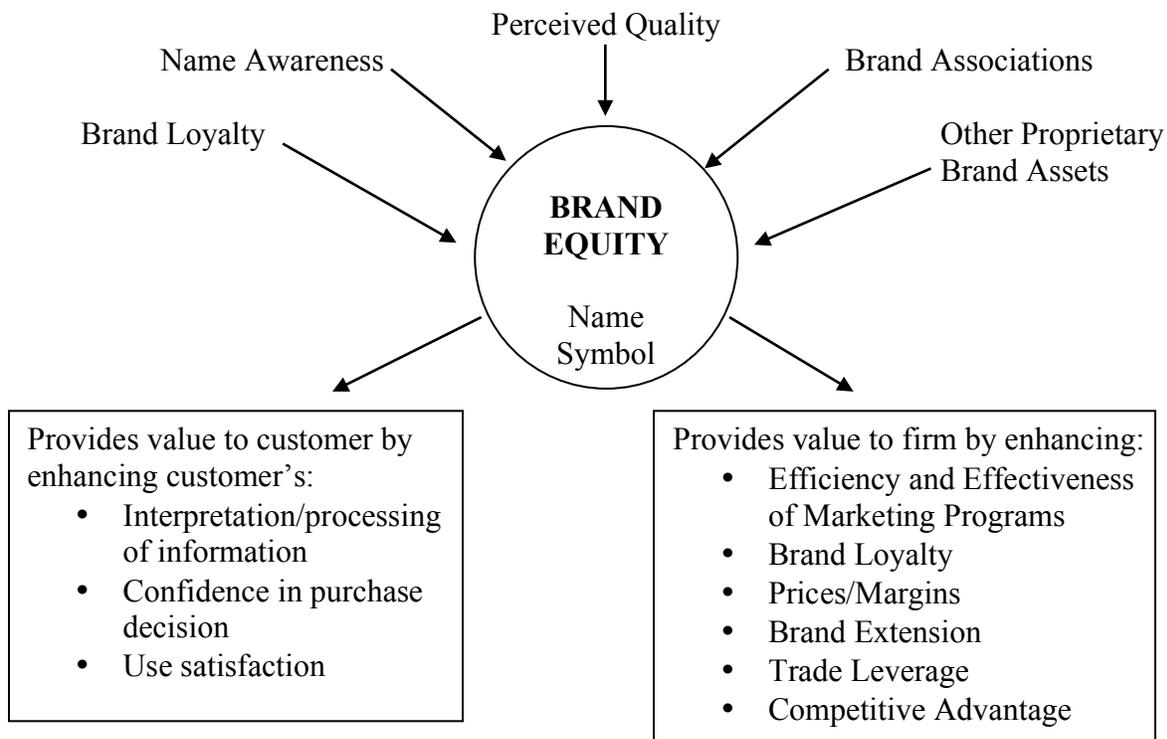


Figure 1. Brand equity according to Aaker (1991).

Aaker (1991) stated that “if a brand’s name or symbol should change, some or all of the assets or liabilities could be affected and even lost, although some might be shifted to a new name and symbol” (p. 16). Aaker’s (1991) description of the effect of change on brand equity is directly applicable to conference realignment. For example, when the former Big East (1979-2013) dissolved and reorganized into the new Big East Conference for basketball and the American Athletic Conference for football, all of the conference members were affected (Wells, 2012). The demise of the 16-team former Big East conference can be tracked to the early 2000s, when the University of Miami, Virginia Tech, and Boston College changed membership from the Big East to the Atlantic Coast Conference (ACC) (Norlander, 2012). Following the loss of these members, the Big East was unable to obtain new conference members to support the level of competitiveness necessary to continue offering competition in college football (Adelson, 2012). Therefore, in 2013, the conference members that were typically more successful in men’s college basketball than in college football left the former Big East Conference to form the new Big East Conference, which does not participate in college football (McMurphy & Katz, 2013; Uthman, 2013). Some other members in the former Big East, such as the University of Louisville, joined the newly formed American Athletic Conference, which does participate in college football (“American Athletic Conference,” 2014).

College Football Brand Equity Framework

Gladden et al.’s (1998) intercollegiate athletics brand equity framework is based on Aaker’s (1991) seminal brand equity framework and will provide the theoretical foundation for this study. The researcher determined that Gladden et al.’s (1998) framework was highly appropriate for this study since this study’s purpose is to explore how indicators of college football brand equity might change for both stable and migrating conference members in the

context of conference realignment. The researcher will utilize Gladden et al.'s (1998) framework to identify and explore the factors that contribute to a football team's overall brand equity. Before probing deeper into the Gladden et al. framework, it is first important to establish how the framework has been utilized and validated in previous empirical research studies.

Precedents. Gladden et al.'s (1998) conceptual framework has been used in several studies to examine how a new head coach contributed to brand equity (Bruening & Lee, 2007; Robinson & Miller, 2003). Robinson and Miller (2003) used the Gladden et al. model to examine how Texas Tech University's basketball brand equity was influenced as a result of the 2001 hiring Coach Bobby Knight, one of the most successful coaches in college basketball history. Specifically, Robinson and Miller explored how the market-related antecedent of head coach, as identified in the Gladden et al. model contributed to the Texas Tech University's brand equity, with increases in basketball game attendance, merchandise sales, and national media exposure. Similarly, Bruening and Lee (2007) used Gladden et al.'s (1998) conceptual framework to examine how the hiring of a new football coach influenced brand equity at the University of Notre Dame. The researchers' results confirmed that hiring Coach Tyrone Willingham measurably increased the University of Notre Dame's brand equity. Both of these studies demonstrate how the Gladden et al. (1998) conceptual framework can be utilized to understand how changes in antecedents of brand equity, such as the hiring of a new coach, can affect overall intercollegiate athletic brand equity. Like Robinson and Miller (2003) and Bruening and Lee (2007), this study will determine how football brand equity, as measured by indicators from Gladden et al.'s (1998) framework, might change in the context of conference realignment. The next section will provide a thorough overview of the Gladden et al. (1998) conceptual framework.

Assessing brand equity in college football. Gladden et al. (1998) applied Aaker's (1991) theoretical framework to develop a conceptual framework for the specific purpose of assessing brand equity in Division I college athletics. Gladden et al. (1998) developed the brand equity conceptual framework based on Aaker's components of brand equity: perceived quality, brand awareness, brand associations, and brand loyalty. Gladden et al. stated that perceived quality is the most important component of brand equity when managing changes in a brand, such as a football conference, because "the failure to manage the quality in a brand's family of products will negatively impact the equity accorded the brand name" (p. 2). Gladden et al.'s (1998) framework also incorporates Aaker's (1991) component of brand awareness, a quality that refers to how readily sports consumers recall a football team or conference's name. In the context of college football, Aaker's (1991) third component, brand association, refers to consumers' emotional connection to team and conference brands (Gladden et al., 1998). Finally, brand loyalty refers to a brand's ability to maintain consumer loyalty over time; in other words, brand loyalty reflects the degree to which a consumer of football, a fan, will continue to support the same football team over time (Gladden et al., 1998). The Gladden et al. (1998) framework posits product-, organization-, and market-related antecedents that contribute to brand equity. The resulting brand equity then generates consequences that feed into marketplace perception, which, in turn, travel through a feedback loop to further influence brand equity antecedents (see Figure 2) (Gladden et al., 1998).

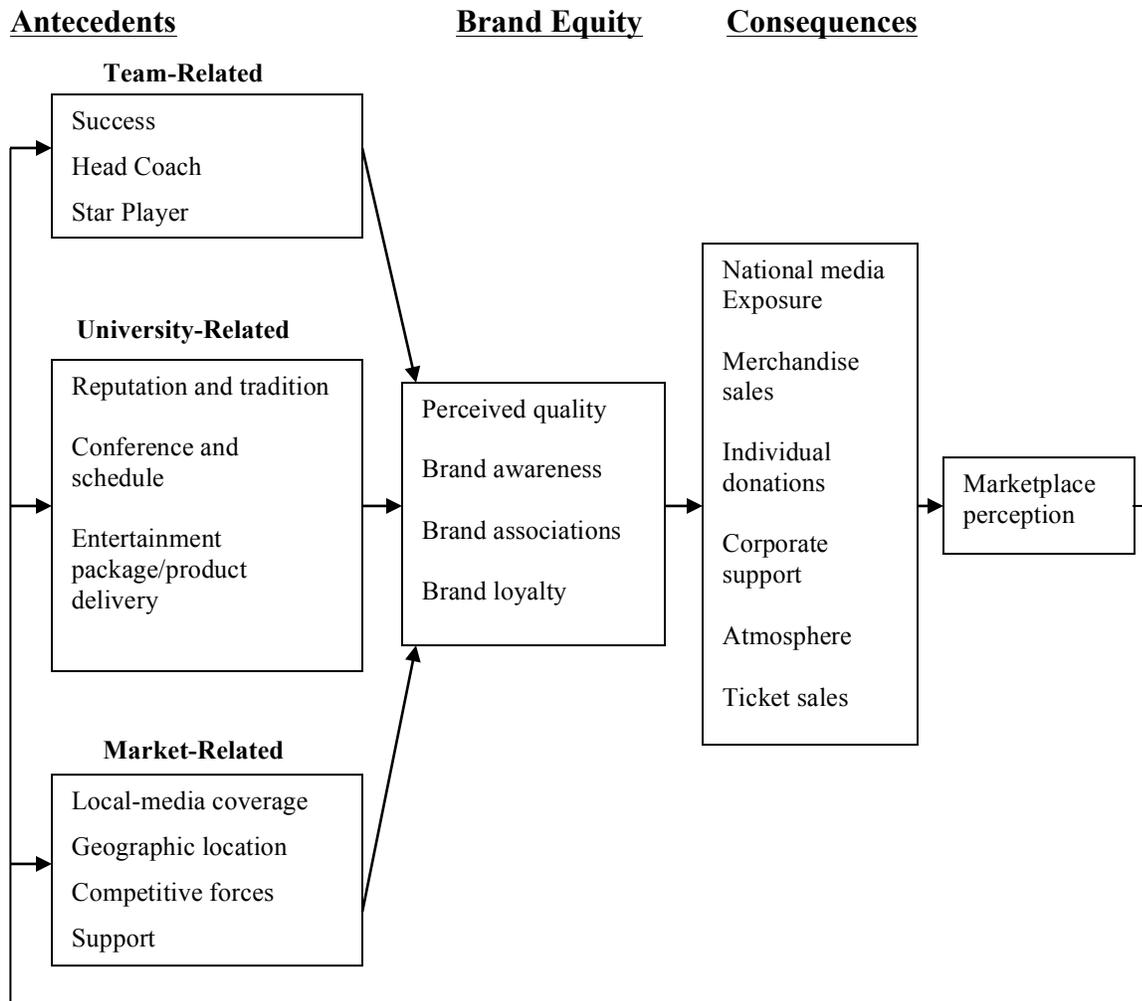


Figure 2. Conceptual framework of brand equity in college athletics (Gladden, Sutton, & Milne, 1998)

The issue of voter bias in college football clearly illustrates the feedback loop in the Gladden et al. (1998) framework. Part of a football team’s overall success is based on how the team is ranked in the polls (“Harris Interactive,” 2014). A football team’s rank in the polls can influence its brand equity and continued success (Gladden et al., 1998). One of the consequences of being highly ranked is the increased chance of receiving an invitation to compete in a post-season bowl game, which provides an increase in national exposure, as well as financial benefits (Caro & Benton, 2012). For example, findings by Campbell, Rogers, and Finney (2007) indicated that higher levels of television exposure directly related to an improved

chance of receiving a coach's vote in the AP poll. When a football team changes conference membership, their ranking might therefore be affected, especially since voter bias exists in the ranking polls (Groza, 2010). Coaches tend to display voter bias towards teams in their own conferences, presumably in an effort to raise the rank of their regular competitors and improve their own strength of schedule (Sanders, 2011). Additionally, AQ conference coaches tend to be biased towards AQ conferences in an effort to minimize the chances that a non-AQ conference football program might receive a BCS bid, which would have financial implications for their own AQ conference (Stodnick & Wysong, 2012). The issue of voter bias in the ranking polls in college football describes the feedback loop inherent in Gladden et al.'s (1998) framework: consequences of brand equity can influence marketplace perception, which then, in turn, influences antecedents of brand equity.

In the context of this study, this framework is particularly useful because it is "relevant at both the conference and national levels" (Gladden et al., 1998, p. 4), making it an appropriate framework for better understanding how changes at the conference level might influence a team's overall football brand equity. When a football team changes conference membership, the team's overall football brand equity might also change (Quirk, 2004; Rhoads, 2004). However, football teams that remain stable in an evolving conference may also experience a change in their program's overall brand equity due to the shifts within their conference. Furthermore, Gladden et al. (1998) state that antecedents of brand equity, such as conference membership, can be manipulated in order to create change, which further justifies the use of the Gladden et al. (1998) conceptual framework for this study.

This section of the literature review has described the conceptual framework used to guide this study. The Gladden et al. (1998) model clearly conceptualizes the relationships

among the components that comprise football brand equity in this study. This model will provide the conceptual framework for understanding how conference realignment might affect both stable and migrating conference members' football brand equity.

Competitive Balance

This section of the literature review will focus on the issues of competitive balance in college football, since competitive imbalance is often the catalyst for conference reorganization and realignment (Rhoads, 2004). This section also discusses the causes of competitive imbalance and some of the possible outcomes of this potentially problematic phenomenon in college football. The concept of competitive balance describes a situation in which the members of a conference have about the same likelihood of winning, regardless of their specific advantages (Depken & Wilson, 2006; Quirk, 2004). Changes in the level of competitive balance among teams within individual conferences and among the Division I conferences themselves can influence the brand equity of both stable and migrating conference members (Bullinger, 2012; Perline & Stoldt, 2007; Rhoads, 2004). Further, conference imbalance can trigger changes in conference membership, which can, in turn, affect the brand equity of entire conferences (Bullinger, 2012).

Causes of Competitive Imbalance

Competitive balance creates a heightened level of uncertainty of outcome in football games, which typically constitutes greater levels of attention and fan excitement, leading to a heightened game day atmosphere, which is an indicator of football brand equity (Gladden et al., 1998; Paul, Humphreys, & Weinbach, 2012; Quirk, 2004). Caro and Benton (2012) examined revenue data for eleven FBS conferences between 2003 and 2009 and found that conferences can become imbalanced when there is a discrepancy between the top and the bottom tiered teams

within the conference, with the same teams ranking highest season after season. For example, as seen in Table 1, the Big Twelve illustrates the great revenue divide between teams within a conference.

Table 1

Big Twelve School Average Football Revenue for 2003-2009

School	Mean	SD	Min.	Max.
Texas	\$68,559,684	\$17,243,876	\$47,556,281	\$93,942,815
Oklahoma	\$39,920,882	\$8,995,464	\$32,275,608	\$58,295,888
Texas A&M	\$37,836,177	\$3,831,086	\$31,103,827	\$42,552,070
Nebraska	\$36,257,831	\$14,617,488	\$20,671,989	\$55,226,605
Colorado	\$24,944,311	\$2,635,164	\$22,053,568	\$28,755,199
Oklahoma St.	\$22,195,311	\$5,831,660	\$16,670,801	\$32,787,498
Texas Tech	\$20,414,548	\$3,830,323	\$14,079,284	\$26,201,009
Kansas State	\$20,262,121	\$1,618,504	\$17,570,624	\$21,900,159
Missouri	\$18,579,150	\$4,491,118	\$14,977,244	\$25,378,066
Iowa State	\$15,044,705	\$4,483,387	\$10,660,310	\$21,261,439
Kansas	\$13,206,721	\$3,585,889	\$9,361,531	\$17,885,176
Baylor	\$9,584,474	\$3,012,555	\$6,202,948	\$14,335,322
All Teams	\$27,233,826	\$17,285,279	\$6,202,948	\$93,942,815

Note. Adapted from Table 7 in Caro and Benton (2012), p. 354

While conferences can become imbalanced when there is a discrepancy between the top and the bottom tiered teams within the conference, competitive balance can also be sensitive to external changes, such as those enforced by the NCAA or the implementation of the BCS (Eckard, 1998; Sutter & Winkler, 2003). Eckard (1998) investigated how the 1952 NCAA-enforced restrictions on player recruiting, eligibility, and compensations affected competitive balance. Eckard used the Herfindahl-Hirschman Index (HHI) to measure the number of top-ten ranked teams in the 25-year periods before and after the NCAA implemented these enforced

restrictions. The HHI is a commonly accepted measurement of the concentration of firms in an industry (Leeds & von Allmen, 2005; Owen, Ryan, & Weatherson, 2007). Eckard's results indicated that competitive imbalance increased among football teams in the FBS due to the mandated regulations. For example, in the 27 years between 1924 and 1951, 65 different teams ranked in the top ten; while in the 27 years between 1957 and 1984, only 55 teams ranked in the top ten. This discrepancy is an indicator of competitive imbalance (Eckard, 1998). Furthermore, Eckard (1998) also found that competitive balance decreased at the conference level as a result of the 1952 restrictions. In another study, Sutter and Winkler (2003) examined the effects of the NCAA's 1977 scholarship limits on competitive balance in college football and found that NCAA enforcements led to a decrease of competitive balance in college football. Like Eckard (1998), Sutter and Winkler (2003) examined equal periods of time both before and after the scholarship limit was implemented.

Unlike these previous NCAA mandates, the literature indicates that implementation of the BCS actually promoted competitive balance among FBS conferences. Dittmore and Crow (2010) investigated how the implementation of the BCS in 1998 might have affected the levels of competitive balance in college football by analyzing within-season and between-season competitive balance for five years before and five years after the formation of the BCS. Like other studies on competitive balance, Dittmore and Crow (2010) used the Herfindahl-Hirschman Index (HHI) to measure championship points and found that within-season competitive balance for all big-time conferences realized a positive increase after the formation of the BCS in 1998. These findings demonstrate how changes from outside sources, such as the NCAA, can influence competitive balance, which can in turn affect football brand equity.

Consequences of Competitive Imbalance

The decline of competitive balance within and among conferences often precipitates member realignment, mergers, reorganization, and even the dissolution or creation of new conferences (Bullinger, 2012; Perline & Stoldt, 2007; Rhoads, 2004). These changes often represent efforts to restore competitive balance within conferences and to promote the overall competitive balance of college football itself (Rhoads, 2004).

Conference reorganization. Competitive imbalance can lead to changes in football brand equity that, in turn, leads to conference reorganization in the form of conference mergers (Perline & Stoldt, 2007). For example, in 1995, four teams from the defunct Southwest Conference merged with eight members of the Big 8 conference to become the Big 12 Conference. Perline and Stoldt (2007) also used the HHI to examine competitive balance, studying conference champions over the Big 8's last ten years and in the first ten years of the Big 12. They found that competitive balance among the members of these conferences increased due to the merger. Specifically, only three teams won the conference championship in the Big 8: the University of Nebraska with six wins, the University of Oklahoma with two wins, and the University of Colorado with two wins (Perline & Stoldt, 2007). In the Big 12, however, six different teams won conference championships: University of Oklahoma with three, University of Texas with two, University of Nebraska with two, University of Colorado with one, Texas A&M University with one, and Kansas State University with one.

Competitive imbalance may also prompt the creation of new conferences. A study by Rhoads (2004) on the Western Athletic Conference (WAC) and Mountain West Conference, along with Quirk's (2004) study on the WAC, asserted that a lack of competitive balance in the WAC was the trigger that set major conference changes into motion. In 1999, the WAC had

sixteen members and in 2003, the top eight members left to form the Mountain West Conference in an effort to restore competitive balance for the football teams in both the Mountain West and the WAC. In Rhoads' (2004) study, conference win-loss records were placed in the HHI formula to compute the level of competitive balance between 1962 and 2002 in the WAC and Mountain West Conference. These findings demonstrate how competitive imbalance can lead to changes in football teams' and overall conferences' brand equity, which can, in turn, lead to conference realignment.

Conference member realignment. When a conference becomes imbalanced, it is likely that the more successful conference members will pursue membership in a more successful conference (Groza, 2010), thereby influencing the brand equity of the football teams that migrated out of the conference, as well as the teams that remained stable in the conference. According to Gladden et al. (1998), conference membership contributes to overall football brand equity because conferences help football teams receive national television exposure and competitive schedules. When a team changes conference membership, a change in the amount of exposure could lead to an overall change in the migrating team's football brand equity. Furthermore, when a team remains stable in an evolving conference, that team might also experience a change in the amount of exposure received. Additionally, when football teams change conference membership or even remain stable in a conference that is gaining or losing members, their schedules will likely change, which could also affect the teams' overall football brand equity.

In recent years, all eleven FBS conferences have had one or more members involved in realignment (Myerberg, 2012). When football programs have changed conferences in the past, the move has typically been into a more successful conference (Groza, 2010). Groza (2010)

used a sports rating system known as the Sagarin ratings to analyze 21 FBS teams that changed conference membership between the 2004 and 2005 football seasons and, as seen in Table 2, he discovered that migrating teams most often realigned with conferences that had higher Sagarin ratings, more bowl game appearances, and higher game day attendance.

Table 2

Conference Average Bowl Appearances, Attendance, and Sagarin Ratings 2002-2003 Seasons

Conference	Bowl Games (2002 & 2003)		Attendance (2002 & 2003)		Sagarin rating (2002 & 2003)	
	Team		Team		Team	
	Total	Rank	Avg.	Rank	Avg.	Rank
SEC	27	1	73,668	1	79.16	1
Big 12	23	2	56,025	3	77.63	3
ACC	20	3	51,308	4	78.92	2
Pac-10	19	4	50,717	5	77.61	4
Big Ten	18	5	70,487	2	77.55	5
Big East	14	6	45,619	6	75.51	6
Mt. West	10	7	34,174	7	69.12	7
C-USA	8.3	8	28,331	8	65.33	8
WAC	7.5	9	24,668	9	62.26	10
MAC	2.7	10	17,320	10	63.70	9
Sun Belt	1.6	11	13,995	11	56.28	11

Note. Adapted from Table 1 in Groza (2010), p. 520

Groza’s (2010) findings support the connection between competitive imbalance and conference realignment, further affirming the need for additional study in this area. The next section in the literature review discusses specific indicators of football brand equity and their roles in the current study as means of better understanding the complex phenomenon of conference realignment.

Indicators of Football Brand Equity

Based on Gladden et al.’s (1998) conceptual framework for brand equity in college athletics, this section addresses specific antecedents and consequences of brand equity in college

football and presents a review of the literature illuminating how conference membership can contribute to a football team's overall success.

Antecedents

This section of the review will discuss antecedents of football brand equity as delineated by Gladden et al. (1998). These antecedents to brand equity, which can serve as measures or indicators of brand equity, include a football program's conference, success, and star players.

Conference. Changes in conference membership can produce changes in football brand equity (Gladden et al., 1998). When a football team changes conference membership into a more successful and competitive conference, football brand equity can increase based on the new conference membership (Collier, 2013; Schroeder, 2013; Smith, 2011). However, teams that remain stable in a conference while other teams migrate in and out of their conference might also experience a shift in their football brand equity based on the shifts of members within their conference (Caro & Benton, 2012; Groza, 2010). A team's conference serves as an antecedent to brand equity in two key ways: as source of revenue and as structure for acquiring a balanced competition schedule (Caro & Benton, 2012; Gladden et al., 1998).

Revenue. As an antecedent of football brand equity, a team's conference membership can influence the amount of revenue a football team receives (Caro & Benton, 2012). Revenue from BCS earnings differed among conferences and the amount each conference received varied considerably, according to research studies by Caro and Benton (2012) and Cheslock and Knight (2012). Caro and Benton's quantitative research study examined revenue data and home game attendance for eleven FBS conferences between 2003 and 2009 and found an imbalanced distribution of conference revenue among conferences. As seen in Table 3, Caro and Benton found that the SEC, Big 10, and Big 12 had the largest conference revenue, while the Sunbelt,

MAC, and WAC had the least revenue. The average revenue for all conferences was \$17,189,517; the AQ conference average was \$26,482,906 and the non-AQ conference average was \$5,423,096. Caro and Benton’s study also found that this revenue discrepancy translated into a discrepancy in home game day attendance as well, with the same three conferences on top and the same three conferences on the bottom each year. Caro and Benton’s (2012) findings demonstrate how a football team’s conference membership can influence their revenue, which, in turn, can influence other football brand equity indicators, such as home game day attendance.

Table 3

Average Football Revenue Across all FBS Conference Schools for 2003-2009

Conference	Sample Size	Mean	SD	Min.	Max.
SEC	84	\$38,239,781	\$18,431,594	\$9,792,405	\$71,884,525
Big 10	77	\$33,384,359	\$15,614,854	\$10,538,427	\$70,208,584
Big 12	84	\$27,233,826	\$17,285,279	\$6,202,948	\$93,942,815
Pac-10	70	\$22,082,133	\$7,399,427	\$9,904,767	\$37,092,611
ACC	81	\$18,653,056	\$7,268,081	\$7,134,512	\$40,634,499
Big East	56	\$15,058,006	\$6,023,013	\$4,739,787	\$29,467,612
Mtn. West	56	\$8,401,776	\$4,039,088	\$2,122,421	\$20,609,361
CUSA	84	\$6,690,266	\$2,593,918	\$1,744,014	\$15,173,200
West. Athl.	63	\$5,130,377	\$2,976,541	\$949,214	\$14,515,613
MAC	91	\$3,951,450	\$2,322,105	\$670,647	\$10,093,610
Sun Belt	63	\$3,504,255	\$1,632,824	\$589,883	\$7,164,071
All Conferences	809	\$17,189,517	\$15,837,521	\$589,883	\$93,942,815

Note. Adapted from Table 1 in Caro and Benton (2012), p. 351

Using football data from the Department of Education’s Office of Postsecondary Education and the Equity in Athletics Disclosure Act website, Caro and Benton (2012) illustrated that great stratification existed regarding revenue between the AQ conferences and the non-AQ conferences. Between 2003 and 2009, AQ conferences generated average revenue of

\$26,482,906, while non-AQ conferences during that time period generated on average only five times less, \$5,423,096 (Caro & Benton, 2012). Caro and Benton's (2012) findings also indicated that because the six AQ conferences had more success and more opportunities to compete in the large BCS post-season bowl games, they typically received substantially more revenue than the non-AQ conferences. Similarly, Cheslock and Knight (2012) also found considerable financial stratification among conference revenue earnings during the timeframe of their study: the top four conferences in the FBS, including the Big 10, SEC, Big 12, and PAC 10, received average revenue of \$5 to \$65 million in 2005, whereas the bottom five conferences received an average of \$1 to \$5 million in revenue the same year.

Revenue distributions not only vary among conferences, but also within conferences (Caro & Benton, 2012; Groza, 2010). Caro and Benton's (2012) study found that football programs ranked in the top of their conference received a greater portion of their conference's total revenue than football programs ranked in the bottom of their conference. In the former Big East, the top ranked West Virginia University received average revenue of \$29,467,612, while the lowest ranked University of Cincinnati received only \$13,325,304 (Caro & Benton, 2012). Caro and Benton (2012) also reported that, from 2003 to 2009, the University of Georgia, the top recipient in the SEC, received over \$59 million; in contrast, Mississippi State University, the lowest recipient in the SEC from 2003 to 2009, received only \$13.5 million. These figures indicated that financial imbalance occurs not only among the different conferences, but also among football programs within conferences. Clearly, ideal conference alignment provides football programs with financial advantages that contribute to their overall brand equity.

Success. Alignment with a lucrative, competitively balanced conference would certainly serve as an antecedent to a high level of brand equity for most football programs, but conference

membership alone is not the only way to secure a valuable brand image (Gladden et al., 1998). According to Gladden et al. (1998), a team's success is a product-related antecedent that is intertwined among all of the components of the football brand equity framework, making success the main contributor to a team's overall brand equity. Gladden et al. (1998) claimed that success is the primary antecedent to football brand equity since "in sport, there is no substitute for winning" and "winning may produce all of the desired outcomes of brand equity" (p. 6).

In the context of this study, conference realignment could result in changes that affect a team's level of success. For example, teams that move into more competitive and successful conferences may not have as many wins as in their prior conferences, due to increased in-conference competition (Depken & Wilson, 2006; Quirk, 2004). Furthermore, a team that remains stable in an evolving conference may experience similar changes in their level of success.

Although success is clearly an important antecedent to brand equity, definitively measuring the success of a team can be a complicated process. Obviously, a team's winning percentage could serve as an appropriate, though basic measure of success ("College Football Rankings," 2014). However, because of the number and complexity of the factors that contribute to a team's winning percentage for a season, football success is most often measured by how the team is ranked (Mather, 2012). In college football, there are several acknowledged ranking systems. Currently, the top ranking systems in college football include the Bowl Championship Series (BCS), Associated Press (AP), Top 25, Harris Interactive College Football Poll, and the *USA Today* Coaches' Poll ("Amway Coaches Poll," 2014).

The BCS ranking system is currently the most meaningful ranking to football teams since it determines end-of-season rankings, including the national champion. Further, it is used to

determine which teams compete in post-season bowl games (BCS, 2013). The BCS ranking used during the time frame of this study uses a formula that includes a combination of three rankings: the Harris Interactive College Football Poll, the *USA Today* Coaches' Poll, and computer generated rankings (BCS, 2013). These three rankings carry equal weight, with each representing one-third of the final ranking. The Harris Poll is comprised of 115 current and former college football players, coaches, administrators, and members of media outlets (Harris Interactive, 2014). The *USA Today* Coaches' Poll is comprised of approximately 60 coaches representing each of the conferences ("Amway Coaches Poll," 2014). The third ranking is known as the computer rankings. The computer rankings are calculated through a formula that involves the use of six different rankings: Jeff Sagarin, Anderson and Hester, Richard Billingsley, Colley Matrix, Kenneth Massey, and Peter Wolfe (BCS, 2013). In order to determine the computer ranking, each team's top and bottom rankings are discarded and the four remaining computer scores are averaged (BCS, 2013). For the time frame of this study, the BCS is the most relevant ranking system.

Sagarin rating. The Sagarin rating is distinctive among the numerous contributors to the BCS since it accounts not only for win percentage, but also for strength of schedule ("Jeff Sagarin Ratings," 2014). Gladden et al. (1998) notes that because some teams play more challenging schedules than others, the Sagarin rating is an appropriate measure of college football success, since this rating scale takes into account the strength of a team's schedule in addition to the number of wins and losses. The Sagarin rating ranks teams on a scale of 0 to 100. The Sagarin rating will be used as an indicator of brand equity in this study because it is the only ranking system that ranks both FBS and FCS football teams.

Star Player. Like conference membership and success, a team's star player is also identified as an antecedent to football brand equity in Gladden et al.'s (1998) framework. The ability of football coaches to recruit top athletes to play for their teams is essential to the team's success (Caro, 2012). Furthermore, star players can generate increases in national media exposure and heighten the game day atmosphere for fans. Star players such as Heisman Trophy winner Johnny Manziel exemplify how having a star player can serve as an antecedent to increased brand equity (Jessop, 2013). In the context of this study, changes in conference membership could result in changes that might affect a football coaches' ability to recruit top athletes.

Recruiting refers to the process by which football coaches from colleges and universities pursue commitments from high school football players to play for their teams and attend that team's college or university ("Football Recruiting," 2014). Every year, college football coaches and staff invest a great deal of time and energy to persuade elite recruits to sign with their football programs (Dummond, Lynch, & Platania, 2007). Because of the demand for top high school football players, recruiting efforts generally claim a considerable portion of college football program budgets (Sherman, 2012). For example, in 2011, the University of Tennessee, a member of the Southeastern Conference (SEC), spent \$1,479,099 in football recruiting expenses (Sherman, 2012). In contrast, Ball State University, a member of the Mid-American Conference (MAC), spent \$72,395 in recruiting expenses, which is less than half of the University of Tennessee (Sherman, 2012).

The intense competition among college football programs to recruit top athletes is not surprising, since successful recruitment of top football players can translate into on-the-field success and overall brand equity (Caro, 2012; Langelett, 2003). Using a regression analysis to

explore the relationship between recruiting success and football team success, Caro (2012) found that successful recruiting practices could explain 63 to 80% of college football program success for members of the SEC, Big Ten, and Big Twelve conferences. Furthermore, successful football programs and top AQ conferences appeared to be in a positive cyclical recruiting loop. For example, Caro (2012) found that the SEC, the Pac-10, and the Big 12 lead all conferences in recruiting between 2004 and 2009. Caro (2012) noted that between 2005 and 2012, teams from these conferences either won or were represented in the BCS National Championship Game. Langelett's (2003) examination of the relationship between recruiting and football success also confirms through a regression analysis that the top 25 football teams for the years 1991 through 2001 were able to successfully recruit top athletes for the next five years. This finding helps explain why top teams are consistently ranked in the top 25 Associate Press poll year after year, while other football programs are seemingly unable to reach a comparable level of success.

Conference membership, especially between AQ and non-AQ conferences, affects the ability of a football program to successfully recruit star players (Caro, 2012; Langelett, 2003). According to Caro (2012) football teams in AQ conferences have a statistically significant advantage over football teams in non-AQ conferences in recruiting top athletes, as result of their higher levels of success and revenue to spend on recruiting. Not surprisingly, Dummond et al. (2007) confirmed that football programs in AQ conferences most heavily recruited elite, five-star athletes. This relationship between recruiting and conference membership illustrates the interrelatedness of a team's success with other antecedents to brand equity, such as star player and conference membership.

Consequences

The Gladden et al. (1998) conceptual framework identifies consequences, as well as antecedents, of brand equity. When football brand equity changes, a change in consequences should also occur, according to Gladden et al (1998). For example, if a football team changes conferences into a more competitive and successful conference or if a football team can boast a star player who has won the Heisman Trophy, these brand equity antecedents would likely lead to positive consequences, such as increases in game-day attendance and program revenue. However, if a football team remains stable in an evolving conference, the team might experience a decline in football brand equity that negatively influences their brand equity consequences. This section will discuss three consequences that can be used as measures or indicators of a football team's overall brand equity. The consequences discussed in this section are ticket sales/game day attendance, national media exposure, and program revenue.

Ticket sales and game day attendance. Gladden et al. (1998) identified ticket sales as a consequence of football brand equity, but since ticket sales directly reflect game day attendance, the following section will address both of these measures as a single, consequence-centered indicator of brand equity. In order to secure the level of brand equity that leads to increased ticket sales and game day attendance, college and university administrators should strive to ensure that their football programs are affiliated with competitive conferences comprised of quality football programs (Groza, 2010). When a team joins a new conference, game day attendance can potentially increase based on increased or more balanced competition against new teams that are more successful and competitive (Groza, 2010). Conversely, teams that remain stable in evolving conferences can experience a decline in game day attendance resulting from the loss of top tier conference members and a drop in the overall competitive balance within the

conference (Groza, 2010). Price and Sen (2003), Depken and Wilson (2006), and Caro and Benton (2012) all found that a football program's conference affiliation affected the number of attendees on game day. As seen in Table 3, Caro and Benton (2012) found that the Big Ten and the Big 12 conferences lead in average home game day attendance, whereas the WAC, MAC, and Sun Belt averaged the lowest attendance. As expected, the AQ conferences all held higher average attendance figures than the non-AQ conferences. Caro and Benton (2012) used a regression analysis to determine the relationship between attendance and revenue. Their results clearly illustrate the brand equity feedback loop in the Gladden et al. (1998) framework, specifically demonstrating how an antecedent of brand equity (conferences) can be directly linked to the consequence of increased in ticket sales and attendance (see Table 4).

Table 4

Average Home Game Day Attendance between 2003-2009

Conference	Sample Size	Mean	SD	Min.	Max.
SEC	84	74,939	20,558	28,472	107,593
Big Ten	77	70,125	27,346	24,190	111,825
Big 12	84	60,097	18,692	30,586	101,175
Pac Ten	70	55,523	15,160	22,509	86,793
ACC	81	52,707	16,691	17,486	82,841
Big East	56	44,966	15,312	20,373	91,480
Mtn. West	56	33,453	14,097	16,413	64,497
CUSA	84	29,477	13,951	10,072	80,367
WAC	63	22,379	9,844	6,479	43,514
MAC	91	17,555	8,694	5,016	60,524
Sun Belt	54	16,977	2,968	7,982	21,468
All Conferences	800	44,613	25,966	5,016	111,825

Note. Adapted from Table 15 in Caro and Benton (2012), p. 359

In alignment with Caro and Benton's (2012) results, Price and Sen (2003) found that stronger conferences typically had greater exposure and revenue from BCS bowl games and large television and apparel contracts, all of which lead to greater game day attendance. Interestingly, Mannie (2005) proposed that the often-drastic differences in attendance and ticket sales between AQ and non-AQ conferences may actually be related to differences in stadium size. For example, the average seating capacity for the AQ Southeastern Conference is 78,155, with two stadiums seating over 100,000 ("SEC Football Stadiums," 2014). In contrast, among members of the non-AQ Conference USA, the average stadium seating capacity is 46,733. However, when an AQ conference football team played in a non-AQ conference football team's stadium, Paul et al. (2012) found that game day attendance increased for the non-AQ team. For example, when the AQ conference member, University of Missouri Tigers University, faced the Toledo Rockets on their home field in 2014, the game was a ("UT Rockets," 2014). Paul et al. (2012) also found that fans of non-AQ teams wanted to be in attendance if their team pulled off an upset.

Fans relish witnessing their team win, so it is not surprising that success on the playing field (much like membership in an elite conference) leads to higher game day attendance (Padgett & Hurt, 2012). For example, football programs ranking in the top 40 between 2005 and 2011 had more consistent fan bases than football programs not consistently ranking in the top 40 (Cheslock & Knight, 2012). This link demonstrates a direct correlation between the brand equity antecedent success and the consequences of brand equity, which is in this case, more consistent fan attendance (Cheslock & Knight, 2012).

Combining the antecedents of conference and success, Groza (2010) found that teams that move into a conference with a higher level of success and competition than their former

conference enjoyed larger football game day attendance numbers as a consequence of increased brand equity. Groza (2010) suggested that the increase in attendance after conference realignment resulted from more competitive games against members of a more competitive and successful conference. Based on Gladden et al.'s (1998) model, the increase in attendance might also be attributed to increased brand equity resulting from a positive change in antecedents through conference realignment. Additionally, Groza (2010) theorized that fans might have attended specifically to watch the new conference rival, a result of the new conference's perceived quality and brand association. Groza (2010) also suggested that the newly joined conference might have greater fan support or drawing ability than the team's previous conference. Brown (2011) stated that many of the more successful programs also had a rich and deep football tradition, one of Gladden et al.'s antecedents that provided them with a more consistent and ample fan base, an established consequence of brand equity.

National media exposure. National media exposure is another consequence of brand equity in intercollegiate sports, according to Gladden et al.'s (1998) conceptual framework. As an antecedent to brand equity, conference membership contributes to the amount of national media exposure due to conferences' television contracts (Campbell, 2014). When a team joins a more successful and competitive conference, their exposure is likely to increase due to the new conference's contracts (Campbell et al., 2007). However, if a team remains in an evolving conference that loses its top-tiered teams to another conference, the stable team's national media exposure could be affected based on a change in the conference's overall brand equity.

Revenue. Although Gladden et al. (1998) do not specifically name revenue as a consequence of brand equity, the term *revenue* serves to encompass several of the revenue-related consequences in Gladden et al.'s (1998) framework. Gladden et al.'s (1998) specific

revenue-related consequences include merchandise sales, individual donations, corporate support, and ticket sales. The literature confirms that the brand equity antecedents, conference membership and success, both have financial implications that extend beyond the playing field. This section will review the empirical research on the relationship between revenue and football brand equity.

College football is a multi-billion dollar enterprise (Isidore, 2012; Smith, 2012). Both the NCAA and the BCS generate millions of dollars in revenue each year, with the NCAA generating \$845 million in the 2010-11 season alone (NCAA, 2014). The most current figures show that the BCS games and other nonprofit bowls generated \$272 million in 2013, primarily due to lucrative contracts with television networks (Smith, 2013). Starting in the fall of 2014, the BCS will change how the FBS national champion is determined by introducing a new four-team playoff system that includes two semi-final competitions, as well as the national championship game (BCS, 2013; Grasgreen, 2012). Because of the addition of two semi-final games, the new BCS contract is estimated to be over \$1 billion dollars (Smith, 2012).

The amount of football revenue invested in football programs is directly related to the amount of on-the-field success by a team, which is evidence of the brand equity feedback loop in the Gladden et al. (1998) framework (Jones, 2012). Jones' (2012) quantitative research study of 330 colleges and universities between 2006 and 2009 identified revenue as a key factor in football program success by drawing a direct correlation between the amount of revenue invested in a football program and the program's on-the-field success. Jones (2012) suggested that if a football program received an additional million dollars, the team's winning percentage, which is a component of the brand equity antecedent success, would rise by an estimated 1.8%. Furthermore, Jones (2012) found an additional positive correlation between the additional

million dollars and the team's chances of finishing in the top 25 of the final Associate Press poll by five percentage points.

Grant, Leadley, and Zygmunt (2013) also positively linked revenue to football program success, explaining that institutions with greater revenue could afford to hire top quality coaches, which is another example of the brand equity feedback loop in the Gladden et al. (1998) brand equity framework. For example, according to Grant et al. (2013), the University of Alabama's football coach, Nick Saban, is the highest paid coach in college football, with a current annual salary between \$7 and \$7.5 million (Casagrande, 2013). After Nick Saban assumed leadership of the team, the University of Alabama's football team recently won three out of four national championships in 2009, 2011, and 2012 ("All-time Results," 2014). In fact, Chancellor Robert Witt said the hiring of Nick Saban was the "best investment the University of Alabama ever made" ("CBS Interactive," 2013).

The previous section of the literature review illustrates how a football team's conference membership can influence the consequences of football brand equity, such as game day attendance, national media exposure, and football program revenue. Football teams that are members of AQ conferences tend to have higher football brand equity than football teams in non-AQ conferences (Caro, 2012; Caro & Benton, 2012). Therefore, understanding the importance of conference membership is critical for college administrators who wish to determine how conference realignment may affect their football programs and institutions. The following section will discuss the benefits that football brand equity can provide to a college or university.

Institutional Benefits of College Football Brand Equity

Understanding how college football brand equity can benefit a college or university is important for administrators in higher education. In fact, a successful football program with a high level of brand equity can bring several critical benefits to the program's affiliated academic institution as a whole. The following section of the literature review will discuss three major benefits an institution might gain from cultivating the brand equity of its football program: exposure, undergraduate applications, and prestige.

Increased Exposure

College football has been referred to as the "front porch" of a college or university because of the prominent role college football teams play in exposing the public to their affiliated educational institutions (Toma, 2003). The advertising provided by a college football program exposes the college or university name and brand image to a broader and more diverse range of individuals who might not have otherwise had a connection to the college or university (Lovaglia & Lucas, 2005). For example, in 2007, the FCS Appalachian State University's Mountaineers defeated the highly ranked FBS University of Michigan's Wolverines on their home field in Ann Arbor, Michigan (Dodd, 2012). The Mountaineers' victory and monumental upset generated increased national recognition for Appalachian State University. Dodd (2012) wrote, "It was Appalachian State's one shining moment, at least in the national consciousness" (para. 10). Football teams with high levels of brand equity can provide "free" advertising to their institutions through different venues, such as television exposure and participation at away games (Frank, 2004). Frank (2004) found that names of colleges and universities likely appeared more frequently in the media due to college football. For example, in 1996, Northwestern University participated in the elite Rose Bowl, after which the university experienced a 185%

increase in newspaper articles written about the university over the average number of articles in the three previous years (Goff, 2000). Goff's (2000) findings illustrated Frank's (2004) statement that "a big-time athletic program serves much like a national advertising campaign" (p. 15). Clearly, colleges and universities indirectly benefit from the free advertising that results from the success of their football programs (McCormick & Tinsley, 1987; Pope & Pope, 2009; Trenkamp, 2009). Lastly, a successful football program provides additional advertising for its college or university if it appears in a postseason bowl game, especially for football programs successful enough to receive bids to one of the elite BCS bowl games (Toma & Cross, 1998).

Undergraduate Applications

In addition to serving as an effective advertising strategy, having a successful football program can help a college or university secure more and better undergraduate applications (Anderson, 2012; Chressanthi & Grimes, 1993; McEvoy, 2005, 2006; Murphy & Trandel, 1994; Pope & Pope, 2009; Toma & Cross, 1998). In their seminal quantitative study, Chressanthi and Grimes (1993) developed a theoretical model of first-year student enrollment demand and investigated how winning percentage related to the quantity of undergraduate applications received for a 21-year period at Mississippi State University (MSU). The findings from the regression model indicated that when MSU increased their winning percentage, they also received an increase in undergraduate applications in the following year (Chressanthi & Grimes, 1993). Similarly, Murphy and Trandel (1994) found that when a football team experienced an unusually successful season and increased their winning by 25%, the school or university received a 1.3% increase in undergraduate applications the following year. Murphy and Trandel's (1994) study investigated the relationship of within-conference winning percentage from 1978 to 1987 in the six big-time conferences of the FBS. A later quantitative research

study by McEvoy (2005) supported these findings by examining winning percentages in the big-six conferences. McEvoy's (2005) analysis of teams' winning percentages between the years 1994 and 1998 showed that when a football team experienced a 25% increase in winning percentage, the college or university also experienced a 6.1% increase in undergraduate applications the following year. The difference in Murphy and Trandel's (1994) and McEvoy's (2005) findings might be attributed to differences in each study's methodology. Murphy and Trandel (1994) calculated winning percentages based on football success only, whereas McEvoy (2005) based their reported winning percentages on four intercollegiate sports. Even so, both studies corroborate a clear link between a winning football season and increased undergraduate applications.

Anderson's (2012) quantitative research study examined the effects of college football success on the quantity of undergraduate applications received for all 120 Football Bowl Subdivision (FBS) members between 1986 and 2009. Anderson (2012) used a propensity score design that took into account bookmaker spreads, which indicate the expected difference in the final scores between two teams. Anderson's (2012) findings indicated that when a college football team improved its season by winning five additional games, the institution should expect to receive a five percent increase in undergraduate applications. Maintenance of the same number of wins or an increase in losses within a football season can also influence the number of undergraduate applications received the following year. McEvoy's (2005) findings indicated that when college football programs did not increase but maintained their winning percentage, their colleges or universities had a 2.5% increase in undergraduate applications the following year. McEvoy (2005) also found that decreased win percentages could have an adverse effect on the quantity of undergraduate applications; colleges and universities whose football teams

experienced a decrease in winning percentage by 25% realized a 0.4% decrease in undergraduate applications the following year.

The literature provides ample support for the assertion that football success influences the number of undergraduate applications an institution receives in the following academic year. Not surprisingly, Pope and Pope (2009) and Toma and Cross (1998) both found that the most substantial influx of undergraduate application occurred when a football team won the National Championship title. Toma and Cross' (1998) quantitative research study found that 14 of the 16 National Championship colleges and universities examined received increases in undergraduate applications ranging from 7% to 34% in the year following a Championship win. For example, when the University of Miami won the National Championship in 1987, applications increased by 34 percent the following year (Toma & Cross, 1998). In the case of the University of Miami, not only did the number of applications increase after the National Championship season, but the number of applications received also remained 33% higher than before the National Championship for the following three years (Toma & Cross, 1998). Similarly, Toma and Cross (1998) indicated that Georgia Tech received a 21% increase in undergraduate applications in the first year following their 1990 National Championship season and continued to experience an increase of 23% over the next three seasons (Toma & Cross, 1998). Clearly, a high end-of-year ranking, especially for teams that win the national championship, can lead to an increase in undergraduate applications, allowing these institutions to be more selective in the admissions process.

Football programs featuring elite football athletes, such as Heisman Trophy winners, also contributed to an increase in undergraduate applications (McEvoy, 2006). This phenomenon is known as the "Flutie Factor," in reference to the 33% increase in undergraduate applications

received the year after Boston College's Doug Flutie won the Heisman Trophy (McEvoy, 2006). Additionally, although not empirically tested, the year after Texas A&M University quarterback Johnny Manziel won the Heisman Trophy, Texas A&M enjoyed a 10% increase in applications the following academic year (Schroeder, 2013). McEvoy's (2006) quantitative research study indicated that between 1998 and 2002, colleges and universities with top five Heisman Trophy contenders received a 6.59% increase in applications, as compared to 3.33% for the control group that consisted of colleges and universities with a similar level of football success without Heisman contenders. According to McEvoy (2006), the talent level on a college football team contributed not only the success of the football team, but also indirectly to the college or university's success through an increase in the quantity of undergraduate applications.

Because studies have shown that college football success positively influences the number of undergraduate applications received, many researchers have sought to determine if the academic quality of the applications improved as well (McCormick & Tinsley, 1987; Mixon, Treviño, & Minto, 2004; Pope & Pope 2009; Trenkamp, 2009; Tucker, 2005). The literature indicates that football success can lead to increases in not only the quantity, but also the quality of undergraduate applications. The year following a successful football season, affiliated colleges and universities experienced increased average Scholastic Aptitude Test (SAT) scores on undergraduate applications (McCormick & Tinsley, 1987; Tucker, 2005; Trenkamp, 2009). McCormick and Tinsley (1987) referred to this correlation as an "advertising effect" that provided evidence of an interdependent relationship between college football and academics (p. 1108). As the foundational researchers of the advertising effect, McCormick and Tinsley (1987) found in their quantitative analysis of approximately 150 colleges and universities in the six big-time conferences that an increase in college football success lead to a similar increase in the

academic quality of the student body because admissions officers could be more selective from the increased quantity of applications received. Pope and Pope's (2009) quantitative research study investigated the correlation between college football success and increased undergraduate applications at 332 colleges and universities that participated in Division I basketball or the FBS between the years 1984 and 2002. The researchers found that the advertising effect of football success resulted in a greater volume of applications that included both low and high SAT scores (Pope & Pope, 2009). However, due to the increased volume of applications, admissions officers effectively enhanced the academic quality of the student body by being more selective in the admissions process (Pope & Pope, 2009). Lastly, Mixon and Treviño's (2005) found that football success could lead to the enrollment of higher quality students, which, in turn could lead to higher retention and graduation rates.

Prestige

Conference realignment occurs for numerous reasons, one of which is the pursuit of greater success and exposure for the football team, which can translate to increased institutional prestige. Conferences that change membership typically move into more prestigious conferences in an effort to increase overall football brand equity and success (Weiner, 2011). In fact, Weiner (2011) found that 8 out of 11 football programs that joined a new conference were ranked in the lower 50 percent of the newly joined conference's existing teams. Even when a team is ranked low among its new competitors, acceptance into a more prestigious conference is still likely to increase the team's overall prestige and brand equity (Jessop, 2013; Leibovitz, 2012). Weiner (2011) measured the moving football conference members' prestige by comparing their individual measures with the median value of all members in the conference they joined. Weiner (2011) conducted this study by comparing 60 different academic, demographic, and financial

measures of institutional prestige documented before the 11 universities included in his study changed conferences and then again after their change in conference membership. The measures included values such as enrollment and type of institution (Weiner, 2011). Weiner's (2011) findings indicated that the universities studied increased their institutional prestige by changing conferences. For example, the University of Utah experienced increased institutional prestige after leaving Rocky Mountain Conference and joining the Pacific-12 in 2011, since their individual average was 78% below the PAC-12 average and 13% above that of their previous conference (Weiner, 2011). This shift demonstrated that the University of Utah had become a member of a more competitive and successful conference (Weiner, 2011). Of note, the University of Colorado and the University of Nevada-Reno did not have indicators below their new conference average, which implies that those teams made a lateral conference move. Lastly, Weiner (2011) noted that while new members typically received an increase in prestige from the new conference membership, accepting new members does not generally increase a conference's overall prestige.

Because of conference realignment and association with the new conference brand, Kramer and Trivette (2012) found that conference realignment heightened student interest in colleges and universities, as well as raised overall institutional prestige. Specifically, the institution in Kramer and Trivette's (2012) study realized a three percent decrease in admission rate and a five percent increase in admission yield rate, as well as an additional 344 undergraduate applications. The literature continually produces evidence that changing conferences can increase institutional prestige.

Weaver (2010) used a qualitative study examined two institutions, the University of Greensboro and Elon University, in order to examine why administrators of these institutions

chose to reclassify their athletic program from the FCS to the FBS. In data from the University of Elon, one participant explained how the reclassification from the FCS to the FBS, as well as membership in the Southern Conference which grouped the University of Elon with similar and competing institutions, benefited the university:

When the Southern Conference voted us in – you know this is one of the finest academic endorsements this institution has received – when Furman and Davidson are giving you a vote of approval. That was an academic thing . . . it was institutional validation (Weaver, 2010, p. 145).

The literature clearly shows that, through realignment with a more prestigious and successful conference, football programs can help to raise their affiliated college or university's level of prestige.

Football teams can also promote institutional prestige through success on the field. In fact, Trenkamp (2009) found that colleges and universities with successful football programs ranked higher in the *U.S. News and World Report* rankings than institutions with less successful football programs. In another study, Lovaglia and Lucas (2005) asked 479 students at the University of Iowa to rank a list of 19 U.S. states based on the societal contributions of the graduates from each state's main university. They found that states with successful football programs at their main flagship universities ranked higher in prestige than states with less successful football programs.

Not surprisingly, the literature also indicates that winning a national championship can increase institutional prestige (Goidel & Hamilton, 2006). For example, after Louisiana State University (LSU) won the National Championship in 2004, Goidel and Hamilton (2006) conducted a study using telephone surveys to gather data regarding the public's perception of LSU's academic quality in light of their recent National Championship. Goidel and Hamilton (2006) gathered data from 1,022 respondents and found that 65% of them agreed or strongly

agreed that success in college football contributed to a higher academic quality of the university, which links to consumer perception per the Gladden et al. (1998) brand equity conceptual framework.

Summary

The review of the literature presented in this chapter demonstrated that indicators of football brand equity are closely related to the conferences with which a football program is affiliated. Furthermore, the review of the literature also demonstrated how football brand equity directly correlates with the potential institutional benefits of college football. College and university administrators might reflect upon the topics outlined in this review when considering conference realignment for their own institutions and when managing the antecedents of college football brand equity. This study will create a college football brand equity scale in order to explore how college football brand equity might change for both stable and migrating conference members in the context of conference realignment. As conference realignment continues to transform the landscape of college football, additional research addressing this topic remains essential. Chapter 3 describes the methodology for this study, which will contribute to the existing body of research on the effects of conference realignment.

CHAPTER 3

METHODS

The purpose of this quantitative study is to explore the trend of college football brand equity for stable and migrating football teams in the context of conference realignment. This chapter delineates the methodology of this study, describing the research design, research questions, sample population, research variables, data collection procedures, statistical analysis procedures, assumptions, delimitations, and limitations.

Research Design

This study used two quantitative research designs that included a longitudinal analysis and a repeated measures design both of which were determined as appropriate since they can be used to assess trends and change of football brand equity for the same population over time (Creswell, 2012).

Research Questions

Based on the conceptual framework and the literature review described in Chapter 2, the researcher has developed the following overarching research question for this study: how does college football brand equity change for stable and migrating conference members in the context of conference realignment? For the purposes of this study, a football team is classified as a migrating conference member if it left one conference and joined another conference any time between 2003 and 2012. A football team is classified as a stable conference member if it remained in the same conference between 2003 and 2012.

The following research questions will serve as the foundation and drive for this study's data collection and analysis procedures:

1. What is the trend of college football brand equity for FBS stable football teams in this study over a ten year period?
2. What is the trend of college football brand equity for FBS migrating football teams in this study over a ten year period?
3. Is there a statistically significant difference in the measure of college football brand equity between FBS stable and migrating conference members?
4. What is the trend of college football brand equity for FCS stable football teams in this study over a ten year period?
5. What is the trend of college football brand equity for FCS migrating football teams in this study over a ten year period?
6. Is there a statistically significant difference in the measure of college football brand equity between FCS stable and migrating conference members?

Sample Selection

The sample for this study included a total of 206 NCAA Division I football teams in the United States (see Appendix A). Teams from the Division I subdivision, the FBS and FCS, were selected for this study because Division I football is the highest level of football competition in the NCAA ("Division I," 2014). A total of 248 football teams participated in NCAA Division I football (NCAA, 2014); therefore, these football teams were included as potential participants in this study. However, a total of 44 football teams were eliminated from this study for one of the following reasons: 1) the football team left one division for another, such as moving from Division II to Division I; 2) the football team reclassified from the FCS to the FBS at any point

in the study; 3) the football team did not participate for all years of the study due to the addition or elimination of participation in football; 4) the football team had an independent status at any point in this study (see Appendix B).

This study included total of 206 football teams from the FBS and FCS. Of the 108 FBS football teams in the study, 82 were classified as stable conference members and 26 were classified as migrating conference members. Of the 98 FCS football teams in the study, 87 were classified as stable conference members and 11 were classified as migrating conference members.

As previously stated, if a football team remained in one conference throughout the time period of this study, it was classified as stable; if a football team changed conference membership at any point during the time frame of this study, the conference member was classified as migrating. Football teams that reclassified from one division to another division, lost or gained independent status, or added/eliminated competition in football were excluded from this study (see Appendix C).

The researcher chose the years from 2003 through 2012 as the timeframe for the study because there was significant conference movement during this time period (see Table 5 & Table 6). To corroborate this fact, Groza (2010) found that a significant amount of member movement took place among FBS conferences between 2003 and 2012, stating that 18.5% of the FBS's teams changed conference membership during this period. Similarly, during this time period, 10% of the FCS's football teams changed conference membership, with the majority of the conference change occurring between the Atlantic 10 Conference, which discontinued football in 2007, and the Colonial Athletic Association. Studying FBS and FCS conference movement between 2003 and 2012 provided the researcher with ample data to construct a clear statistical

picture of the effects of conference realignment on football brand equity for both FBS and FCS football teams.

Table 5

Conference Membership Changes in the FBS

Team	Former Conference	New Conference	Year of Conference Change
Miami	Big East	ACC	2004
Virginia Tech	Big East	ACC	2004
Boston College	Big East	ACC	2005
Central Florida	MAC	C-USA	2005
Cincinnati	C-USA	Big East	2005
Idaho	Sun Belt	WAC	2005
Louisville	C-USA	Big East	2005
Marshall	MAC	C-USA	2005
New Mexico St.	Sun Belt	WAC	2005
Rice	WAC	C-USA	2005
South Florida	C-USA	Big East	2005
Southern Methodist	WAC	C-USA	2005
Texas Christian	C-USA	Mtn. West	2005
Texas – El Paso	WAC	C-USA	2005
Tulsa	WAC	C-USA	2005
Utah State	Sun Belt	WAC	2005
Boise St.	WAC	Mtn. West	2011
Colorado	Big 12	Pac-12	2011
Nebraska	Big 12	Big Ten	2011
Nevada – Reno	WAC	Mtn. West	2011
Utah	Mtn. West	Pac-12	2011
Fresno State	WAC	Mtn. West	2012
Hawaii	WAC	Mtn. West	2012
Missouri	Big 12	SEC	2012
Texas A&M	Big 12	SEC	2012
West Virginia	Big East	Big 12	2012

Table 6

Conference Membership Changes in the FCS

Team	Former Conference	New Conference	Year of Conference Change
Delaware	Atlantic 10	Colonial	2007
James Madison	Atlantic 10	Colonial	2007
Maine	Atlantic 10	Colonial	2007
New Hampshire	Atlantic 10	Colonial	2007

Rhode Island	Atlantic 10	Colonial	2007
Richmond	Atlantic 10	Colonial	2007
Towson	Patriot	Colonial	2007
Villanova	Atlantic 10	Colonial	2007
William & Mary	Atlantic 10	Colonial	2007
Duquesne	MAAC	Northeast	2008
Samford	Ohio Valley	Southern	2008

Research Variable

Based on the research questions, literature review, conceptual framework, and the availability of data, the research variable in this study is football brand equity, as indicated by selected variables representing Gladden et al.'s (1998) antecedents of football brand equity. While Gladden et al.'s (1998) framework includes both antecedents and consequences of football brand equity, only antecedents were measured as variables in the current study because the football brand equity consequences reflect the outcomes of the previous year's football brand equity and can also indicate a team's potential football brand equity for the coming, but not current, year. Gladden et al. (1998) explained that "consequences can impact the antecedents such that the consequences in period t impact the antecedents in period $t + 1$ " (p. 5-6). Since the consequences in Gladden et al.'s (1998) framework do not indicate a team's brand equity in current year being measured, only antecedents of brand equity were selected to serve as dependent variables in this study.

Additionally, the variables selected from the Gladden et al. (1998) framework were chosen based on the availability of data between 2003 and 2012 and the variables' ability to measure or indicate specific antecedents. Some of the variables represent direct measures of specific antecedents, while others serve more as indicators of antecedents of college football brand equity. Table 7 shows the variables selected to represent antecedents of college football brand equity and will be measured for each football team in this study.

Table 7

Proxies to Measure Antecedents and Consequences of Football Brand Equity

Brand Equity Antecedents	Variables
Success	Bowl game appearance (FBS) Playoffs (FCS) Sagarin Rating End-of-season winning percentage
Head Coach	Head coach winning percentage
Star Player	Heisman Trophy (FBS) Walter Payton Award (FCS)
Conference and Schedule	Conference winning percentage Conference Sagarin Rating
Support	Attendance (or percentage of capacity – pick one) Revenue

Success. On-the-field football success is the paramount indicator of football brand equity (Gladden, et al., 1998; Anderson, 2012; Caro, 2012; Gladden et al., 1998; Goidel and Hamilton, 2006; Toma & Cross, 1998; Tucker, 2005). Gladden et al. (1998) claimed “in sport, there is no substitute for winning athletic contests and receiving postseason invitations” (p. 6). For this study, each team’s success was determined using the following data: participation in a bowl game for FBS football teams or participation in the football championship playoff for FCS football teams, end-of-season winning percentage, and Sagarin Rating.

End-of-season winning percentage was used to quantify on-the-field college football success for all FBS and FCS football teams in this study between 2003 and 2012 because this percentage measures the percent of football games won by the football team during a complete season, including post-season play. The Sagarin Rating, which was the only computer rating that includes both FBS and FCS football teams, was also used as a measure of success based on its use in the literature as a credible indicator of not only success but also strength of schedule (Groza, 2012; Schaff, 2007; Trenkamp, 2009). Additionally, the Sagarin rating reflects not only a team’s end-of-season winning percentage, but also incorporates the team’s strength of schedule

and quality of wins based on margin of victory, strength of opponent, and whether the win was home or away (“Jeff Sagarin Rating,” 2014). Bowl game appearance will serve as a final measurement of success for FBS football teams because the end-of-season participation in a bowl game represents a football team’s winning record during the regular season (BCS, 2013). For FCS teams, participation in the end-of-season championship playoff tournament will serve as a final measurement of success.

Head coach. Another of Gladden et al.’s (1998) antecedents used as an indicator of football brand equity in this study was head coach. According to Gladden et al. (1998), a “coach with a proven track record can instantly enhance the brand equity of a college team through publicity and expectations of success” (p. 6). To measure a head coach’s “track record” for all FBS and FCS football teams in this study between 2003 and 2012, the researcher compiled and analyzed each head coach’s cumulative winning percentage up to the year being measured. A coach’s career winning percentage reflected the past success of the coach, which could be used to predict a coach’s current and future likelihood of leading the football team to on-the-field success and contributing to the team’s overall brand equity.

Star player. Star player was another antecedent from Gladden et al.’s (1998) framework that served as an indicator of football brand equity. A star player can bring a lot of attention and possible success to a football team, which can contribute to the football team’s overall brand equity (Caro, 2012; Dummond et al., 2007; McEvoy, 2006). Gladden et al. (1998) stated that a “college that is successful in recruiting a star player, or a player that generates astonishing statistics, garners immediate national media exposure” (p. 6). In order to determine what teams had a “star player” between 2003 and 2012, the current study examined Heisman Trophy winner data for FBS football team and Walter Payton Award winner data for FCS football teams (see

Appendix C). A Heisman Trophy winner is indicative of a star player in the FBS since the award is presented to the most outstanding FBS college football player (Heisman Trophy, 2014). For the FCS, Walter Payton Award data will serve as a measure of the star player antecedent for all football teams between 2003 and 2012. The Walter Payton Award was determined to be indicative of a star player in the FCS since the most outstanding FCS college football player annually receives this award (“Walter Payton Award,” 2014).

Conference and schedule. A football team’s conference membership and schedule can contribute to a football team’s brand equity (Gladden et al., 1998; Groza, 2010; Rhoads, 2004; Weiner, 2011). Gladden et al. (1998) explained that “conference affiliation is important because most universities do not possess enough brand equity to... create competitive schedules on their own” (p. 7). Conference winning percentage and conference Sagarin rating will reflect the overall on-the-field competitiveness and success of the conference as a whole between 2003 and 2012.

Support. The amount of support a football team receives is an indicator of the football team’s brand equity (Groza, 2010; Price & Sen, 2003). Gladden et al. (1998) defined *support* as “the size and loyalty of a particular athletic team’s following” (p. 8). To measure the amount of support all FBS and FCS football teams received between 2003 and 2012, the current study collected and analyzed data from two indicators for each team in the study: the average percentage of the stadium capacity filled at home games and football revenue. Although attendance is not a direct or comprehensive measure of support, it does indicate the amount of support a football team receives and can serve as an estimate of a team’s ticket sales (Groza, 2010). Although football program revenue is a comprehensive and complex figure, it serves as

an indicator of the amount of corporate support, individual donations, merchandise sales, and ticket sales received by football programs in this study.

Data Collection Procedures

The data for this study was collected from multiple sources for each FBS and FCS football team for each season between 2003 and 2012. The following section describes how the data was collected, as well as the study's data sources.

Conference Membership Stability

First, to establish the stability status of each conference member, the researcher consulted ESPN College Football Standings ("College Football Standings," 2014) to identify each FBS and FCS football team's conference membership. In an Excel document, each FBS football team's conference membership was recorded for each year in the study's timeframe, from 2003 through 2012. The same process was applied to track conference membership changes for FCS football teams. Conference members that remained in one conference throughout the time period of this study were classified as stable; conference members that changed conference membership at any point during the time frame of this study were classified as migrating. For example, the University of Oklahoma Sooners and the University of Texas were both members of the Big 12 for all years in this study and were classified as stable conference members, whereas the University of Miami Hurricanes and the University of Virginia Tech Hokies changed conference membership from the Big East to the Atlantic Coast Conference and were accordingly classified as migrating conference members.

Antecedents of Football Brand Equity Variables

End-of-season winning percentage. The data the researcher used to calculate each FBS and FCS football team's winning percentage for each year in the timeframe of the study, 2003 to

2012, was collected from the ESPN website (“College Football Standings,” 2014). After obtaining each football team’s win/loss record, the researcher converted the data into a winning percentage by dividing the number of wins by the total number of games played.

Sagarin rating. Sagarin ratings were obtained from the *USA Today* Sagarin rating website (2014) for each football team in this study over time, 2003 through 2012.

Post-season play. For FBS football teams, data confirming participation in post-season bowl game, as well as the type of bowl game in which each team participated, were obtained from the ESPN website for each football team in this study over time, 2003 through 2012 (“College Bowls,” 2014). For FCS football teams, data confirming participation in the post-season Football Championship Series was obtained from Sports Reference for the years 2003 through 2012.

Head coach. Head coach antecedent data were collected from the website for each football team in this study over time, 2003 through 2012 (“College Football Data,” 2014). The head coach for each football team was identified and each coach’s winning percentage was calculated based on the coach’s career winning percentage for each year up to the year being measured.

Star player. FBS football team star player antecedent data were collected from the Heisman Trophy website for each football team with a Heisman Trophy winner between 2003 and 2012 (“Heisman Trophy,” 2014). Star player antecedent data were collected from the Sports Network website for each FCS football team with a Walter Payton Award winner between 2003 and 2012 (“Walter Payton Award,” 2014).

Conference and schedule. Conference and schedule antecedent data included the conference winning percentage for both FBS and FCS football teams’ conferences. Conference

winning percentage for FBS football teams was obtained from Sports Reference (Kubatko, 2014). Using an Excel worksheet, the winning percentage was recorded for each football team within that conference. This process was repeated for all conferences and all football teams for each year in the timeframe of this study, 2003 through 2012. The same process was applied for FCS football teams; however, conference winning percentage data for FCS football teams was calculated by averaging the winning percentages of all teams in the conference for each year to get the conference's overall winning percentage each year.

Support

Support antecedent data included average home game-day attendance and football revenue. The average home game day attendance data was collected from the NCAA (2014) website for each FBS and FCS team for each year in the timeframe of this study, 2003 through 2012. Next, FBS and FCS football team's stadium size data was collected from the College Gridiron website (2014) and was recorded. The percentage of each football team's stadium capacity filled was determined by dividing the total average attendance by the total capacity of the stadium. If the stadium expanded during the time frame of the study, the new total stadium capacity was used in the calculations. Football revenue data were collected from the Equity in Athletics website (2014) for FBS and FCS football teams for years 2003 through 2012.

In all cases, the researcher collected data from established and credible sources. All data sources for this study have longstanding reputations for collecting, compiling, and reporting accurate data for college football. An Excel document was used to record and organize the collected data.

Statistical Analysis

The statistical analysis procedures used to derive this study's findings are described in

detail in this section. The researcher used the statistics software SPSS, Version 20 (IBM, 2011) to conduct all statistical analysis for this study.

First, because of the voluminous data set, reduction of the set was necessary. To determine which combination of variables best represented the antecedents of college football brand equity variables and to determine the simplest underlying structure of the group of variables, the researcher used exploratory factor analysis, which is used to “identify groups or clusters of variables; reduce a data set to a more manageable size while retaining as much of the original information as possible” (Field, 2005, p. 619). Field (2005) explained that “by reducing a data set from a group of interrelated variables into a smaller set of factors, factor analysis achieves parsimony by explaining the maximum amount of common variance in a correlation matrix using the smallest number of explanatory concepts” (Field, 2005, p. 620). The Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett’s test of Sphericity were used to measure the appropriateness of factor analysis and principle-axis factor extraction. The researcher selected to use direct oblimin rotation because there were “theoretical grounds for supposing the factors might correlate” (Field, 2005, p. 637). Factor scores were obtained through this process and then used to determine how antecedents of football brand equity change for stable and migrating football teams in the context of conference realignment.

Next, to determine the statistical significance between stable and migrating football teams’ football brand equity mean, the researcher used general linear model (GLM) repeated measures analysis of variance (ANOVA). Repeated measures ANOVA was determined as an appropriate technique because the same football teams participated in all conditions over time

(Field, 2005). Additionally, because one of the fundamental assumptions in the use of repeated measures ANOVA is that of sphericity, Mauchly's Test of Sphericity was inspected in each analysis (Field, 2005). Chapter 4 presents the results of this study's statistical analysis.

CHAPTER 4

RESULTS

The purpose of this study was to examine how college football brand equity changed for stable and migrating football teams in the context of conference realignment. This study used two primary designs. The researcher used a longitudinal analysis to determine the trend of football brand equity over time and a repeated measures design to determine the statistical significance of football brand equity between stable and migrating football teams in the context of conference realignment. The study's findings are organized and presented in three sections: 1) the results of exploratory factor analysis that was used to condense the extensive data set into a one factor, 2) the results for the FBS football team's football brand equity through tables and line graphs, and 3) the results for the FCS football team's football brand equity through tables and line graphs.

Pre-Analysis

The Gladden et al. (1998) football brand equity conceptual framework was consulted to identify antecedents of football brand equity; the antecedents selected to represent brand equity in this study were success, head coach, star player, conference and schedule and support. Next, the researcher identified specific measures or indicators of each selected antecedent in existing data sets and used this data to measure football brand equity (see Table 8).

Table 8

Football Brand Equity Antecedents and Associated Measures/Proxies

Brand Equity Antecedents	Measures/Proxies
Success	Post Season Play <ul style="list-style-type: none"> • Bowl game appearance (FBS) • Playoffs (FCS) Sagarin Rating
Head Coach	End-of-season winning percentage
Star Player	Head coach winning percentage
	Award <ul style="list-style-type: none"> • Heisman Trophy (FBS) • Walter Payton Award (FCS)
Conference and Schedule	Conference winning percentage
	Conference Sagarin Rating
Support	Game Day Attendance - Percent of Stadium Filled
	Football Revenue

Note. Antecedents selected from Gladden et al. (1998)

The complete, original data set for the 206 football teams in this study spanned a ten year period and contained 18,540 data points. Because of the vastness of the data set, it was necessary to combine and condense the brand equity measures/proxies data into a smaller more manageable form. The researcher identified exploratory factor analysis as an appropriate technique to reduce the data from an expansive group of “interrelated variables into a smaller set of factors” (Field, 2005, p. 620). Furthermore, factor analysis “achieves parsimony by explaining the maximum amount of common variance in a correlation matrix using the smallest number of explanatory concepts” (Field, 2005, p. 620). For this reason, the researcher selected and applied factor analysis as an appropriate technique to identify one factor or number that represented the various antecedents of football brand equity.

Before applying the technique to the data set, the researcher first assessed the suitability of exploratory factor analysis using several well-recognized criteria for factorability to support the appropriateness of factor analysis for this data set: Kaiser-Meyer-Olin (KMO measure and

Bartlett's Test of Sphericity (Field, 2005). First, the KMO measure of sampling adequacy was .732, which is classified as "good" and is above the recommended .5 minimum requirement (Field, 2005). Field (2005) stated that a "value close to 1 indicates that patterns of correlations are relatively compact"; meaning that, for the current study, factor analysis would "yield distinct and reliable factors" (p. 640). Next, Bartlett's Test of Sphericity, $\chi^2 (1234, N = 123) = 13121.979, p < .000$, was significant with a value less than .05 meaning the variables are correlated and appropriate for factor analysis (Bartlett, 1937).

Factor extraction guidelines are debatable (Field, 2005; Patil, Singh, Mishra, & Donava, 2008). There are three criteria generally used in factor extraction including: Kaiser's (1960), criterion of retaining all factors with an eigenvalue greater than 1, Catell's (1966) criterion of selecting factors at the point of inflexion on a scree plot, and Jolliffe's (1972, 1986) criterion of retaining all factors with eigenvalues more than 0.7. The results of the factor analysis in this study identified two factors with eigenvalues greater than 0.7, which also meet both Catell (1966) and Jolliffe's (1972, 1986) criteria. Examination of the scree plot (see Figure 3) showed that the two factors should be retained because the point of inflexion was at the third data point or factor.

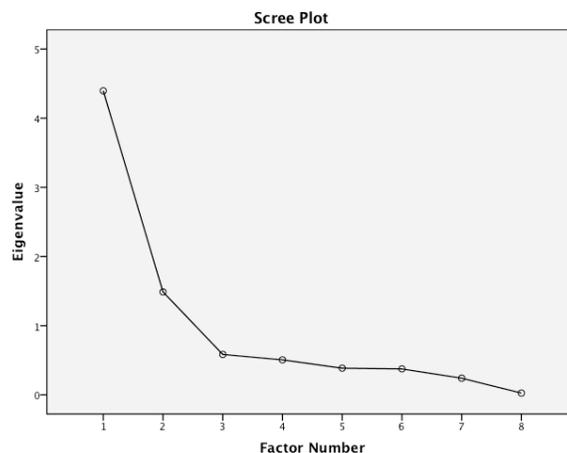


Figure 3. Antecedents of football brand equity scree plot.

However, the intent of the exploratory factor analysis was to condense the antecedents of football brand equity into one number that could represent antecedents of football brand equity while maintaining conceptual meaningfulness with the data set.

Since Factor 1 represents 49.10% of the variance among the measures and proxies used to determine football brand equity, the researcher selected Factor 1 as an appropriate measure to represent the antecedents of football brand equity and the interpretation of the loadings of Factor 1 was consistent with the antecedents of college football brand equity that the variables were designed to measure (see Table 9).

Table 9

Factor Matrix Loadings of Football Brand Equity Measures/Proxies

Measure/Proxy	Factor 1	Factor 2
Sagarin Rating	.932	-.079
Conference Sagarin Rating	.787	-.549
Football Revenue	.740	-.220
Postseason	.717	.222
Game Day Attendance – Percent of Stadium Filled	.700	-.067
Conference Winning Percentage	.604	-.274
Coach Winning Percentage*	.524	.501
Winning Percentage*	.636	.704
Award**	.137	.068

Note.

* Eliminated because the variables loaded significantly at >.40 on more than one component. ** Eliminated because the factor loadings were <.40.

The one-factor solution provided the cleanest factor structure and was consistent with the antecedents of football brand equity selected from Gladden et al.'s (1998) brand equity conceptual framework. Factor 1 was generally referred to as *antecedents of football brand equity*, since it combined measurements of the following antecedents: Sagarin rating, conference Sagarin rating, football revenue, game day attendance – percentage of stadium filled, and conference winning percentage. The measure *antecedents of football brand equity* was used

throughout data analysis as a representation of the antecedents of football brand equity from the Gladden et al. (1998) framework that were selected as indicators of brand equity for this study.

Demographics Analyses

Before discussion of the sample characteristics, this section will provide a brief demographic analysis and overview of the individual variables that represented antecedents of football brand equity in Factor 1. These included Sagarin rating, football revenue, postseason, and game day attendance – percentage of stadium filled. The demographics of each of these variables are presented in Table 10 according to each football team's stability status and division.

Sagarin rating. In the FBS, stable and FBS migrating football teams had comparable average Sagarin ratings between 2003 and 2012. FBS stable football teams' average Sagarin rating between 2003 and 2012 was 71.26; FBS migrating football teams' Sagarin rating was 71.29. FCS teams did not demonstrate this same consistency. FCS migrating football teams' average Sagarin ratings were higher than FCS stable football teams' average Sagarin ratings every year between 2003 and 2012. The average Sagarin rating for the timeframe of the study for FCS migrating football teams was 54.45 while FCS stable football teams had a much lower average rating of 43.83.

Football revenue. There was a considerable discrepancy between FBS and FCS football revenue, with FBS football teams averaging \$10 to \$30 million each year and FCS football teams averaging only \$1 to \$5 million annually. In the FBS, stable teams had higher average revenue than migrating teams during the timeframe of the study. FBS stable football teams' average revenue between 2003 and 2012 was \$21.8 million, while FBS migrating football teams' average revenue was \$15.2 million over the same period of time. For stable FBS teams, revenue increased consecutively every year between 2003 and 2012. Likewise, FBS migrating football

teams' revenue also increased in an upward trend over time (see Table 10). Whereas stable teams had higher average revenue in the FBS, FCS migrating football teams' average revenue between 2003 and 2012 was \$3.4 million, which outstripped the FCS stable football teams' average revenue of \$2.2 million over the same time period. In the cases of both stable and migrating teams in the FCS, average football revenue increased consecutively every year between 2003 and 2012.

Table 10

Demographic Analysis of Individual Variables that Represent Antecedents of Football Brand Equity

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Sagarin										
FBS										
Stable	72.08	70.71	71.98	71.07	70.91	71.41	70.91	69.84	71.52	72.17
Migrating	68.32	71.34	71.61	72.15	70.46	71.54	72.26	73.43	71.93	69.88
FCS										
Stable	41.03	45.73	40.62	43.00	43.31	44.32	44.76	46.52	44.08	44.88
Migrating	51.84	60.84	47.81	51.46	52.51	59.91	58.09	59.54	53.27	49.22
Revenue										
FBS										
Stable	14.8	15.5	16.9	19.2	21.5	22.6	24.3	25.4	28	29.9
Migrating	10.6	10.2	11.7	13.4	15.5	16.7	17.1	18.2	18	20.5
FCS										
Stable	1.3	1.5	1.7	1.9	2.1	2.4	2.5	2.7	2.9	3.0
Migrating	2.0	2.3	2.5	2.7	3.2	3.7	3.9	4.2	4.7	4.9
Attendance										
FBS										
Stable	77	78	77	79	80	80	78	79	79	79
Migrating	73	75	74	74	78	81	78	81	75	79
FCS										
Stable	55	53	54	56	56	55	53	55	57	54
Migrating	65	64	72	73	73	75	71	79	84	49

Note. Revenue data is in the millions. Attendance data represents the average % of stadium capacity filled at home games. Conference Sagarin rating and conference winning percentage data not included in this analysis because data is not grouped by conference. The data for postseason not included because it is nominal data.

Game day attendance. The game day attendance demographic analysis showed that game day attendance, as indicated by the average percentage of stadium capacity filled during home games, remained fairly consistent across all FBS and FCS groups between 2003 and 2012. Analysis revealed that there was little difference in average game day attendance among FBS stable and migrating teams: FBS stable football teams' average game day attendance between 2003 and 2012 was 79%, while FBS migrating teams averaged a comparable 76% over the same time period. FCS football teams' average game day attendance as measured by percent of stadium capacity filled was, not surprisingly, somewhat lower than that of FBS teams. Further, the discrepancy between the average home game day attendance percentages for FCS stable and migrating teams was more pronounced than in the FBS, with FCS migrating teams averaging 73% and FCS stable teams averaging only 55% between 2003 and 2012. Although FCS stable football teams experienced the lowest average game day attendance during the timeframe of the study, this group's average game day attendance increased consistently over the course of the study's timeframe, with the exception of 2012.

Brand Equity Interpretive Scale and Demographics

The brand equity model developed in this study was based on a scale that centered around zero. For a frame of reference, the team with the highest football brand equity in the study was the Alabama Crimson Tide who had a brand equity score of 3.48 in 2009 and the team with the lowest football brand equity in the study was the Albany Great Danes who had a brand equity score of -2.32. The median brand equity score was -.19. The interpretive scale was based on the range and median brand equity score where a low brand equity score ranged from -2 to -1.1, a moderate brand equity score ranged from -1 to 1, and a high brand equity score ranged from 1.1 to 3 (see Table 11).

Table 11

Brand Equity Interpretive Scale

Low Brand Equity	-2	to	-1.1
Moderate Brand Equity	-1	to	1
High Brand Equity	1.1	to	3

The top ten and bottom ten football teams for the FBS are listed in Table 12 and the top ten and bottom team football teams for the FCS are listed in Table 13.

Table 12

Top Ten and Bottom Ten Football Team Brand Equity in the FBS

Top Ten	Texas Longhorns	2.268
	Florida Gators	2.250
	Alabama Crimson Tide	2.123
	Georgia Bulldogs	2.120
	LSU Tigers	2.179
	Oklahoma Sooners	2.177
	Ohio State Buckeyes	2.177
	Auburn Tigers	1.856
	USC Trojans	1.753
	Penn State Nittany Lions	1.650
Bottom Ten		
	Eastern Michigan Eagles	-.999
	Buffalo Bulls	-.830
	New Mexico State Aggies	-.806
	North Texas Mean Green	-.796
	Tulane Green Wave	-.778
	UAB Blazers	-.769
	Louisiana Monroe Warhawks	-.733
	Akron Zips	-.727
	Kent State Golden Flashes	-.625
	Utah State Aggies	-.557

Table 13

Top Ten and Bottom Ten Football Team Brand Equity in the FCS

Top Ten		
	Appalachian State Mountaineers	.743
	Montana Grizzlies	.706
	New Hampshire Wildcats	.422
	Delaware Fightin' Blue Hens	.413
	James Madison Dukes	.398

Northern Iowa Panthers	.370
Georgia Southern Eagles	.347
Eastern Washington Eagles	.271
Southern Illinois Salukis	.201
Villanova Wildcats	.180

Bottom Ten

Valparaiso Crusaders	-1.532
St. Francis Red Flash	-1.434
Texas Southern Tigers	-1.409
Butler Bulldogs	-1.381
Alcorn State Braves	-1.270
Mississippi Valley St. Delta Devils	-1.253
Davidson Wildcats	-1.223
Columbia Lions	-1.198
Sacred Heart Pioneers	-1.163
Howard Bison	-1.158

Sample Characteristics

This study sampled NCAA Division I football teams in the United States. Although total of 248 football teams participated in NCAA Division I football (NCAA, 2014) during the timeframe of the study, 44 football teams were eliminated from inclusion in this study for one of the following reasons: 1) the football team left one division for another, such as moving from Division II to Division I FCS, at some point in the study; 2) the football team left one Division I subdivision to another, such as moving from the FCS to the FBS at some point in the study; 3) the college or university eliminated participation in football at some point in the study; 4) the football team had an independent status at some point in this study (see Appendix A). Consequently, the final sample consisted of 206 NCAA Division I football teams, with 108 teams from the Football Bowl Series (FBS) subdivision of Division I and 98 from the Football Championship Series (FCS) subdivision (see Appendix B). Of the 108 FBS teams, 82 were classified as stable conference members and 26 were classified as migrating conference

members. Of the 98 FCS teams in the sample, 87 were classified as stable conference members and 11 were classified as migrating conference members.

Findings from the Research Questions

Research Question 1

What is the trend of college football brand equity for FBS stable football teams in this study over a ten year period?

Table 14 shows the trend of football brand equity for FBS stable football teams in this study over a ten year period of time from 2003 through 2012. In examining the mean change for football brand equity, it is clear that football brand equity had a general upward trend over time for FBS stable football teams (see Figure 4). The football brand equity mean increased overall from 2003 ($M = .47$) to 2012 ($M = .81$). As seen in Figure 4, football brand equity means increased every year with the exception of 2004, 2009, and 2010 each of which had slight decreases.

Table 14

Football Brand Equity for FBS Stable Football Teams

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mean	.47	.43	.50	.51	.58	.63	.61	.56	.73	.81
Std. Dev.	.92	.88	.93	.97	1.01	.93	1.03	1.06	1.00	.97
Min	-1.5	-1.2	-1.23	-1.07	-1.26	-1.25	-1.63	-1.43	-1.1	-1.16
Median	.55	.37	.45	.37	.56	.53	.55	.57	.73	.85
Max	2.53	2.83	2.9	2.94	2.69	2.95	3.48	3.32	3.21	3.23

Note. $N = 82$

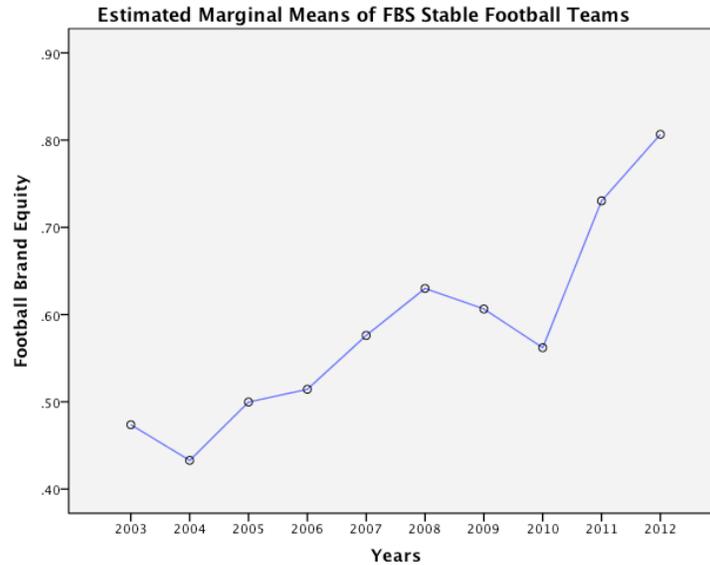


Figure 4. Estimated marginal means of FBS stable football teams' brand equity.

Research Question 2

What is the trend of college football brand equity for FBS migrating football teams in this study over a ten year period?

Table 15 shows the trend of football brand equity for FBS migrating football teams in this study over a ten year period of time from 2003 through 2012. In examining the mean change for football brand equity, it is clear that football brand equity for FBS migrating football teams had a general upward trend over time between 2003 ($M = .24$) and 2012 ($M = .54$). As seen in Figure 5, the football brand equity mean for FBS migrating football teams increased every year with the exception of 2007 and 2011. In 2007, the football brand equity mean dropped only slightly by .06; however, in 2011, the football brand equity mean dropped by .21, which represented the greatest change in football brand equity, including increases and decreases, between any of the years between 2003 and 2012.

Table 15

Football Brand Equity for FBS Migrating Football Teams

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mean	.24	.38	.43	.56	.50	.62	.64	.71	.50	.54
Std. Dev.	.87	.85	.82	.80	.83	.80	.79	.72	.81	.85
Min	-1.2	-1.11	-1.19	-1.02	-1.09	-.68	-.81	-.4	-.85	-.89
Median	.41	.48	.49	.73	.68	.68	.55	.72	.35	.47
Max	1.79	1.75	1.62	2.01	1.99	1.85	1.89	1.8	1.7	2.56

Note. $N = 26$

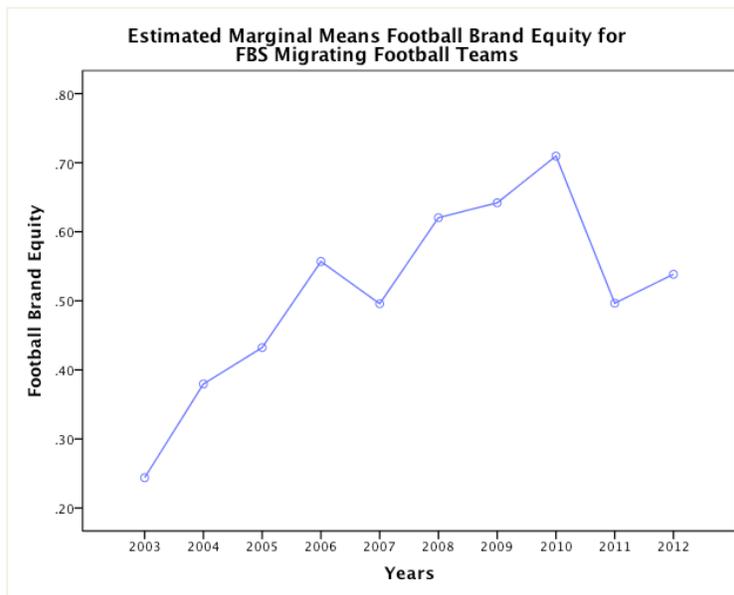


Figure 5. Estimated marginal means of FBS migrating football teams' brand equity.

Research Question 3

Is there a statistically significant difference in the measure of college football brand equity between FBS stable and migrating conference members?

A general linear model (GLM) repeated measures analysis of variance (ANOVA) was used to determine the statistical significance between FBS stable and migrating football team's brand equity. Mauchly's test was used to determine if the "variances of the differences between conditions [were] equal" (Field, 2005, p. 429). Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(44) = 252.355, p = .000$; therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\epsilon = .566$).

The results of the repeated measures ANOVA show that there was not a statistically significant difference between FBS stable and migrating team's football brand equity, $F(.679, .347) = .1958, p = .082$. Figure 6 shows a visual comparison of how the football brand equity mean changed for FBS stable and migrating football teams over time. As seen in Figure 6, in 2004, 2007, 2009, 2010, and 2011, the FBS stable and FBS migrating football team's brand equity moved in opposite directions with the FBS stable football team's brand equity increasing and the FBS migrating football team's brand equity decreasing, or vice versa. However, overall, both FBS stable and FBS migrating football team's brand equity increased over time between 2003 and 2012.

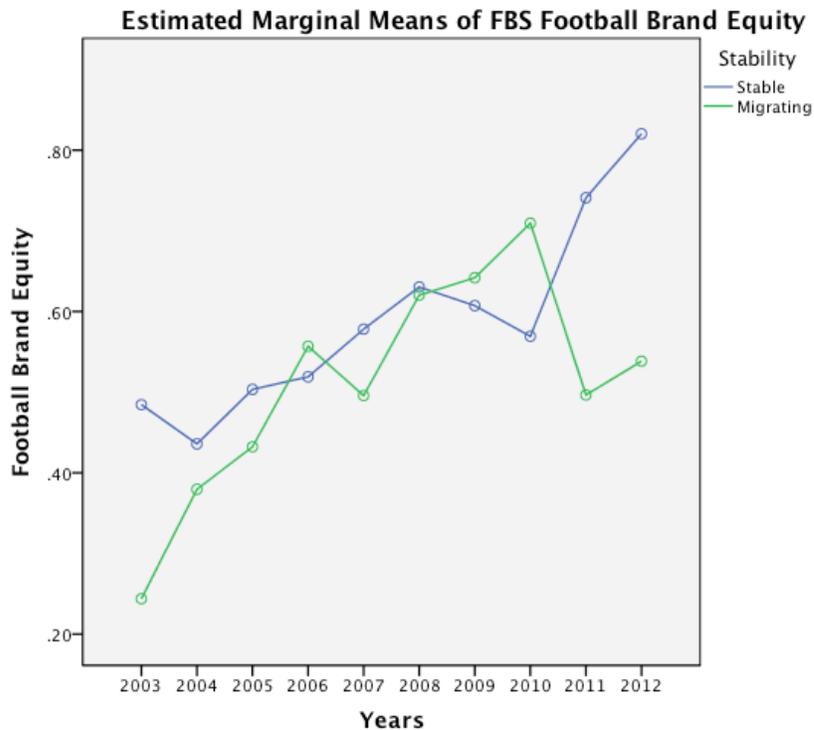


Figure 6. Changes in FBS stable and FBS migrating football teams' brand equity over time. Additionally, the FBS stable football team's brand equity was higher than FBS migrating football team's brand equity except for years 2006, 2009, and 2010 (see Figure 7).

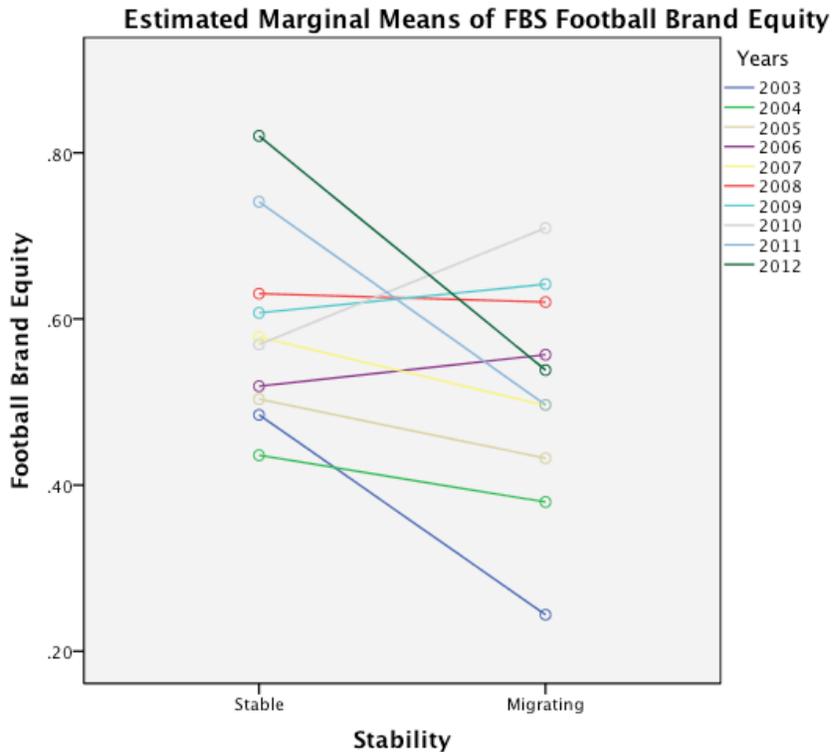


Figure 7. Differences in FBS stable and FBS migrating football teams' brand equity by year.

Research Question 4

What is the trend of college football brand equity for FCS stable football teams in this study over a ten year period?

Table 16 shows the trend of football brand equity for FCS stable football teams in this study over a ten year period of time from 2003 through 2012. The FCS stable football team's brand equity increased slightly by .04 between 2003 ($M = -.73$) and 2012 ($M = -.69$).

Furthermore, the changes in the FCS stable football team's brand equity was inconsistent over time with increases followed by decreases every year except for years 2007 and 2008 of which both had consecutive increases (see Figure 8).

Table 16

Football Brand Equity for FCS Stable Football Teams

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mean	-.73	-.64	-.74	-.71	-.67	-.63	-.71	-.62	-.76	-.69
Std. Dev.	.63	.55	.62	.56	.62	.58	.55	.60	.68	.56
Min	-2.32	-1.95	-2.14	-1.8	-2.14	-1.85	-1.71	-1.95	-2.24	-1.84
Median	-.72	-.62	-.74	-.76	-.78	-.62	-.77	-.67	-.80	-.75
Max	1.14	.92	1.29	1.18	1.43	1.34	1.26	1.11	1.2	.92

Note. $N = 87$

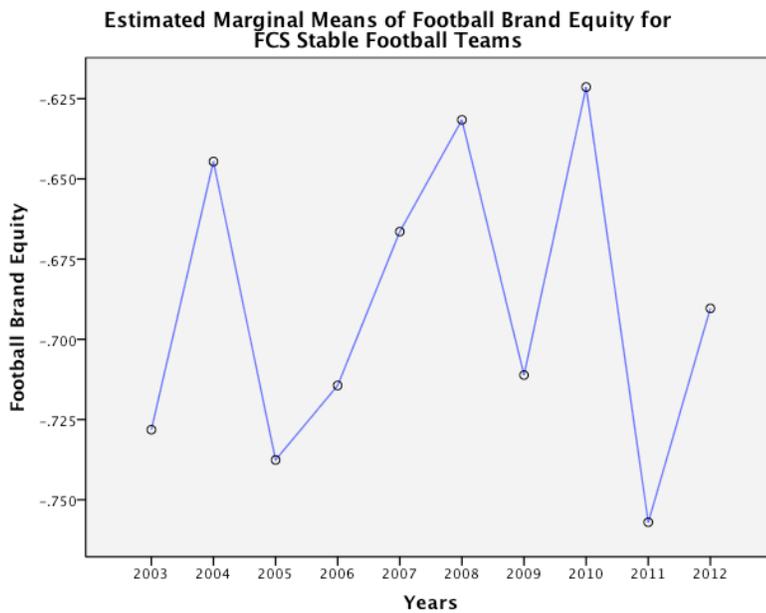


Figure 8. Estimated marginal means of FCS stable football teams’ brand equity.

Research Question 5

What is the trend of college football brand equity for FCS migrating football teams in this study over a ten year period?

Table 17 shows the trend of football brand equity for FCS stable football teams in this study over a ten year period of time from 2003 through 2012. The FCS stable football team’s brand equity decreased slightly by .05 between 2003 ($M = -.32$) and 2012 ($M = -.37$).

Additionally, the changes in the FCS migrating football team’s brand equity were inconsistent

over time. In 2004, the FCS migrating football team’s brand equity increased by .46 and then in 2005, decreased by .44. In 2006, 2007, and 2008, the FCS migrating football team’s brand equity increased every year. Following was a slight decrease in 2009 and an increase in 2010. In 2011, the FCS migrating football team’s brand equity decreased slightly and in 2012 it decreased more by .33.

Table 17

Football Brand Equity for FCS Migrating Football Teams

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mean	-.32	.14	-.30	-.20	-.12	.17	-.02	.08	-.04	-.37
Std. Dev.	.63	.81	.40	.61	.59	.65	.80	.59	.41	.39
Min	-.98	-.95	-.88	-1.22	-.96	-.84	-1.16	-.92	-.73	-1.16
Median	-.35	.02	-.29	-.28	-.14	.06	.17	-.21	-.04	-.32
Max	1.36	1.37	.47	.94	.81	1.15	1.2	.98	.53	.19

Note. N = 11

Furthermore, the changes in the FCS migrating football team’s brand equity was inconsistent over time with increases followed by decreases every year except for years 2007 and 2008 of which both had consecutive increases (see Figure 9).

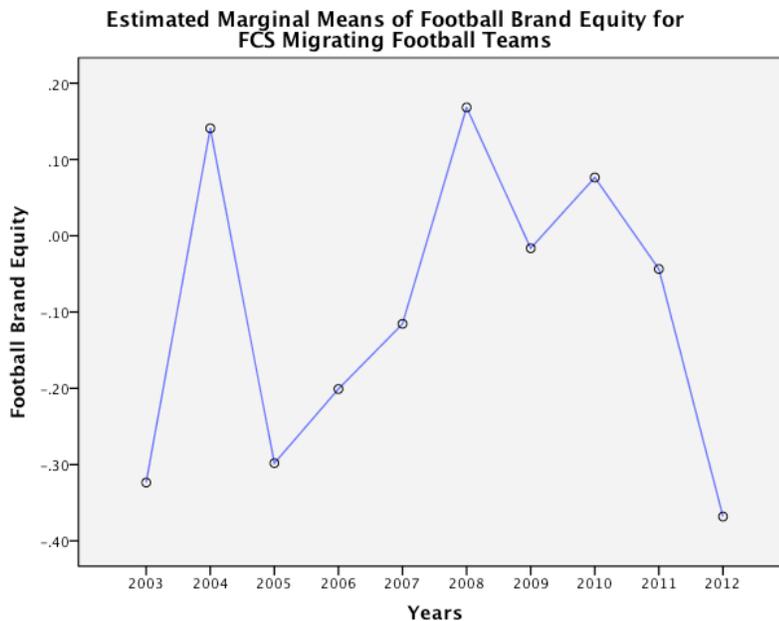


Figure 9. Estimated marginal means of FCS migrating football teams’ brand equity.

Research Question 6

Is there a statistically significant difference in the measure of college football brand equity between FCS stable and migrating conference members?

A general linear model (GLM) repeated measures analysis of variance (ANOVA) was used to determine the statistical significance between FCS stable and migrating football team's brand equity. Mauchly's test was used to test if the "variances of the differences between conditions [were] equal" (Field, 2005, p. 429). Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(44) = 201.438$ $p = .000$; therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\epsilon = .660$).

The results of the repeated measures ANOVA show that there was a statistically significant difference between FCS stable and migrating teams' football brand equity, $F(5.940, 570.250) = 2.306$, $p > .05$. As seen in Figure 10, the FCS migrating football teams' brand equity was higher than the FCS stable football team's brand equity every year between 2003 and 2012. The FCS stable and FCS migrating football team's brand equity increased and decreased in the same years with the exception of year 2012 when the FCS migrating decreased and the FCS stable increased.

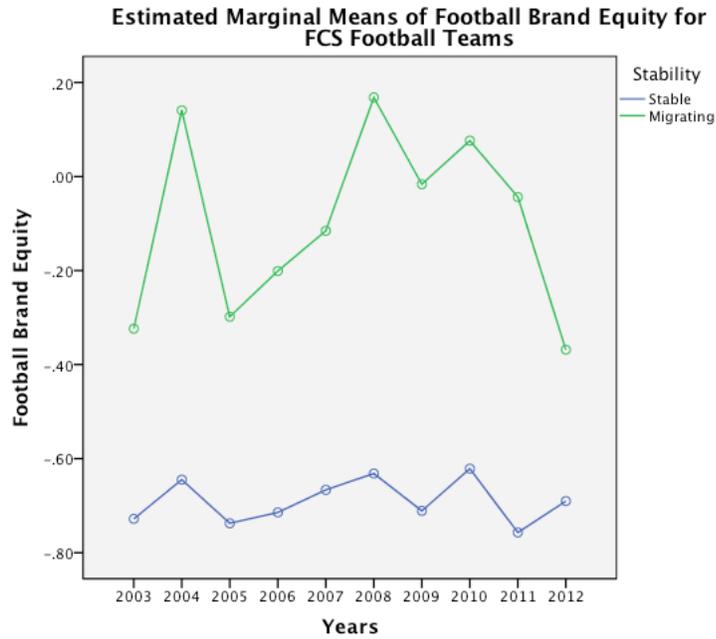


Figure 10. Changes in FCS stable and FCS migrating football teams' brand equity over time.

As seen in Figure 11, the FCS migrating football team's brand equity was higher than the FCS stable football team's brand equity every year between 2003 and 2012.

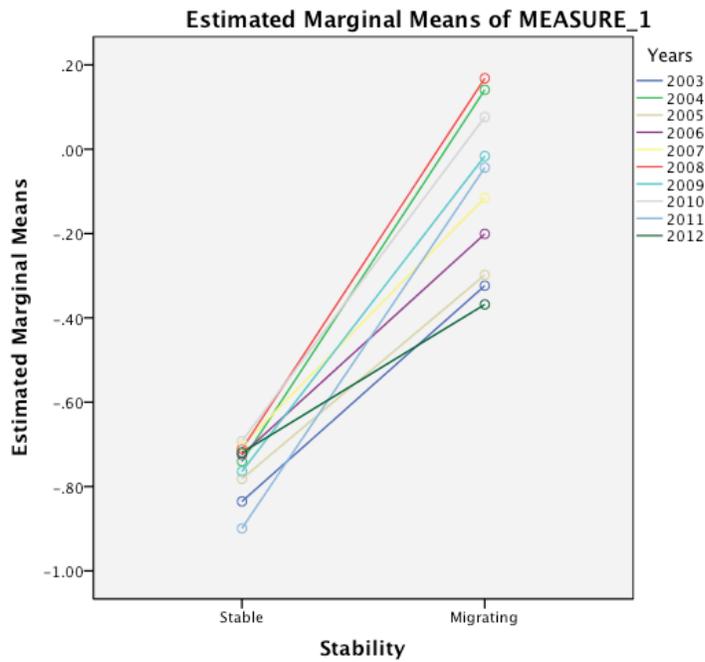


Figure 11. Differences in FCS stable and FCS migrating football teams' brand equity by year.

Summary

In examining football brand equity trends for stable and migrating football teams in the FBS and FCS football subdivisions, there were differences in the trends among the groups. Both FBS stable and FBS migrating football teams' brand equity trended in a general upward direction over time between 2003 and 2012. The FBS stable football team's brand equity increased by .34 between 2003 ($M = .47$) and 2012 ($M = .81$) and the FBS migrating football teams' brand equity increased by .3 between 2003 ($M = .24$) and 2012 ($M = .54$). The FBS stable football teams had higher football brand equity eight of the ten years over FBS migrating football teams. However, there was not a statistically significant difference between FBS stable and migrating football teams' football brand equity mean over time between 2003 and 2012.

Unlike the FBS, both FCS stable and FCS migrating football teams' football brand equity was inconsistent over time, between 2003 and 2012. The FCS stable football team's brand equity increased slightly by .04 between 2003 ($M = -.73$) and 2012 ($M = -.69$), whereas the FCS migrating football team's brand equity decreased slightly by .05 over time, between 2003 ($M = -.32$) and 2012 ($M = -.37$).

Also different from FBS football teams, FCS migrating football teams had a higher football brand equity mean over FCS stable football teams. Additionally, there was a statistically significant difference between FCS stable and migrating football teams' football brand equity mean over time, between 2003 and 2012. In summary, this chapter described the trends of football brand equity for FBS and FCS stable and migrating football teams. Chapter 5 will further discuss these findings, their possible implications, and recommendations for further research related to football brand equity and conference realignment.

CHAPTER 5

DISCUSSION

The overall purpose of this study was two-fold: to develop a measure of college football brand equity based on the Gladden et al. (1998) intercollegiate athletics conceptual framework and to determine how college football brand equity might change for stable and migrating football teams in the context of conference realignment. Analyses of these changes were conducted for the National Collegiate Athletic Association (NCAA) Division I football teams in the Football Bowl Subdivision (FBS) and the Football Championship Division (FCS). Teams were classified as either stable or migrating conference members.

There is discussion and movement toward reform in intercollegiate athletics in areas such as the governance of the NCAA and increased autonomy for the five super conferences: the Atlantic Coast Conference (ACC), the Big Ten Conference, the Big 12 Conference, the Pacific-12 Conference (Pac-12), and Southeastern Conference (SEC) (Bennett, 2014). As the result of these reforms, decision makers in intercollegiate athletics might be forced to consider changes regarding their football teams' conferences or even subdivision membership. The creation of a college football brand equity model might be a beneficial tool for informing these major decisions, since such a model could be used to quantify and better understand a football program's worth in terms of brand equity and to estimate potential changes in brand equity for teams considering realignment or reclassification.

Additionally, in recent years, conference realignment has been a trend in college football (Norlander, 2014). When a football team moves from one conference to another conference, the

dynamics of the conference that the team left, as well as those of the new conference can potentially be altered. Understanding how stable football teams, those that remain in the same conference over time, are influenced by the movement of migrating football teams could be beneficial to decision makers of intercollegiate athletics to better understand the effects of conference realignment upon their colleges and universities, even when they have not experienced realignment directly. The purpose of this chapter is to provide an overview of the research methods used in this study, discuss major findings and conclusions, and offer recommendations for future research.

Methods and Procedures

This study included 206 football teams that participated in the NCAA Division I FBS and FCS between 2003 and 2012. Of the football teams, 108 were in the FBS and 98 were in the FCS. Of the FBS teams, 82 were classified as stable conference members and 26 were classified as migrating conference members. Of the participating FCS teams, 87 were classified as stable conference members and 11 were classified as migrating conference members.

Data were collected from multiple sources that included ESPN College Football, *USA Today* Sagarin Ratings, the Sports Network, Sports Reference, and the U.S. Department of Education's Equity in Athletics database. The selection of these sources was based on their credibility and use as data sources in previous scholarly research studies.

The first procedure involved creating a measurement to represent antecedents of football brand equity. The first task was to condense the vast data set into one measurement that could be used to collectively represent antecedents of football brand equity. The researcher selected exploratory factor analysis as an appropriate technique for this purpose since it could reduce the data into one factor (Field, 2005). After this single measurement or factor was extracted, it was

used throughout the rest of the analysis to examine brand equity trends and the effects of conference realignment on stable and migrating football teams. To examine brand equity trends, the researcher utilized a longitudinal analysis to examine a group over time (Creswell, 2012). Then, to determine how antecedents of football brand equity changed for stable and migrating football teams in the FBS and FCS, the researcher used repeated measures ANOVA because it allowed the researcher to examine change over time (Creswell, 2012).

Summary of the Findings

This study created a single measurement of antecedents of football brand equity based on the Gladden et al. (1998) intercollegiate athletics brand equity conceptual framework. The sample in this study included a total of 206 football teams from the FBS and FCS. Of the 108 FBS football teams in the study, 82 were classified as stable conference members and 26 were classified as migrating conference members. Of the 98 FCS football teams in the study, 87 were classified as stable conference members and 11 were classified as migrating conference members.

Trends in football brand equity were determined using a longitudinal analysis. The findings in this study showed that there are different trends for football brand equity for FBS football teams and FCS football teams. Football brand equity for FBS stable and migrating football teams trended upward, whereas the trends for FCS stable and FCS migrating football teams were inconsistent, and in the case of the FCS stable teams in the study, brand equity actually decreased slightly over the timeframe of the study. Additionally, the FCS migrating football teams' brand equity mean was higher every year between 2003 and 2012, unlike in the FBS, where stable football teams had a higher overall average brand equity mean.

To determine the statistical significance between FBS stable and FBS migrating football teams' brand equity and between FCS stable and FCS migrating football teams' brand equity, the researcher used repeated measures ANOVA. The findings showed that there was not a statistically significant difference in football brand equity between FBS stable and FBS migrating football team's brand equity. Differing, the findings showed there was a statistically significant difference in football brand equity between FCS stable and FCS migrating football team's brand equity with FCS migrating football teams' brand equity being higher than FCS stable football teams.

Conclusion and Implications

College football is both a national phenomenon and a multi-billion dollar industry in the United States (Clotfelter, 2011; Dennie, 2012; Nocera, 2012; Smith, 2012). Furthermore, college football is also deeply engrained into the fabric of America's colleges and universities (Anderson, 2012; Pope & Pope, 2009; Toma, 2010). Since one of the foundational studies on intercollegiate athletics by Toma and Cross in 1998, many studies have examined how success in college football can provide benefits to colleges and universities (Brown, 2011; Dennie, 2012; Toma & Cross, 1998; Weiner, 2011). The current study's goal was not to determine whether college football can be a beneficial resource for colleges and universities; this fact is well established in the existing literature. Many of the existing research studies on college football examined how college football success correlates to college or university benefits, such as increased quantity and quality of undergraduate applications (Chressanthis & Grimes, 1993; McCormick & Tinsley, 1987; McEvoy, 2005; Murphy & Trandel, 1994; Pope & Pope, 2009; Toma & Cross, 1998), increased prestige (Fisher, 2009; Goidel & Hamilton, 2006; Lovaglia & Lucas, 2005), and increased institutional exposure (Trenkamp, 2009; Tucker, 2005).

Currently, there is not a generally accepted football brand equity model in the existing literature. Furthermore, there appear to be only a small number of research studies in the literature that pertain to college football conferences and conference realignment (Bullinger, 2012; Caro & Benton, 2012; Groza, 2010; Perline & Stoldt, 2007; Rhoades, 2004; Quirk, 2004). The current study addresses this gap in the literature by using the Gladden et al. (1998) intercollegiate athletics conceptual framework to develop a college football brand equity model in order to create a measurement of football brand equity. This study demonstrated that the Gladden et al. (1998) model provides an appropriate framework upon which to create a measurement of football brand equity. The current study's brand equity model will be useful for quantifying and, subsequently, utilizing a football team's brand equity status for the benefit of the college or university. Specifically, this study was able to use the football brand equity measurement to investigate how conference realignment affected FBS and FCS stable and migrating conference members' football brand equity in an effort to fill the gap in the literature regarding conferences and conference realignment in Division I college football.

Implications

The current study's findings have many critical implications for college football programs and their affiliated institutions. First, the implications of the analyses of the various antecedents used to calculate the study's brand equity measure will be examined, followed by discussion of the implications of the study's more formal results.

Demographic analysis. Administrators of higher education institutions with college football programs who are considering changing conferences or whose conferences are experiencing changes in membership might benefit from the results of this study. The demographic analysis of the individual variables that represent antecedents of football brand

equity provided some valuable insight into differences and changes in Sagarin rating, football revenue, and attendance for FBS and FCS stable and migrating football teams.

Groza (2010) examined conference realignment and found that football teams that changed conferences typically moved to conferences that had higher Sagarin ratings and higher game day attendance. Groza's (2010) findings support the findings for demographic factor analyses of antecedents used to determine brand equity for FCS football teams. In fact, migrating football teams that changed conference membership in the FCS subdivision had higher Sagarin ratings, football revenue, and attendance than FCS stable teams. However, this study's findings for FBS stable and migrating football teams differed from Groza's (2010) findings that found that football teams that change conferences had an increase in game day attendance and Sagarin ratings. In the current study, FBS stable and migrating football teams had similar Sagarin ratings and attendance numbers and migrating football teams did not have higher Sagarin rankings or attendance numbers.

Administrators of higher education who are considering changing conference membership might have some concerns about how the change might affect different areas of the football team's brand equity, such as rankings, revenue, and attendance. Additionally, administrators of higher education might be concerned about how the addition or loss of conference members might affect their teams' football brand equity. In light of these concerns, this study's findings in the demographic analysis have several implications.

As far as rankings, the average Sagarin ranking over time between 2003 and 2012 for FBS stable (71.26) and FBS migrating (71.29) football teams was almost identical. Therefore, shifts in conference membership within the FBS subdivision should not have an effect on either the stable or migrating football teams' success, as measured by the Sagarin Rating. However,

FCS migrating football teams had higher Sagarin Ratings than FCS stable football teams. Therefore, changing conferences in the FCS should provide the opportunity for increased success, as measured by the Sagarin Rating.

The revenue demographic analysis provides insightful data that is consistent with the existing literature on college football revenue (Caro & Benton, 2012). Caro and Benton's (2012) study examined the football revenue among FBS football teams and found significant differences between FBS conference with a BCS automatic-qualifying (AQ) status and FBS conferences with a non-AQ status (Caro & Benton, 2012, p. 345). The demographic analysis of football revenue in the current study generated similar results to Caro and Benton's (2012) findings. This study found differences in the football brand equity mean between FBS stable and FBS migrating football brand equity and between FCS stable and FCS migrating football team's brand equity. While the FBS differences were not statistically significantly different, the trend analysis demonstrated that FBS stable football teams had higher football brand equity mean eight of the ten years in this study.

For administrators of higher education who are considering changing conference membership in the FBS, awareness of the vast differences in revenue between FBS stable football teams (\$21.8 million) and FBS migrating football teams (\$15.2 million) could be critical. One reason for this great difference might be because the majority of the consistently successful AQ conference member football teams with high brand equity tend to remain stable within their conference (Quirk, 2004). In fact, Quirk (2004) found that most of the conference realignment in the FBS took place for the football teams right below the top level.

Additionally, these top AQ conference member football teams typically carry the highest portion of the overall revenue within their conferences (Caro & Benton, 2012; Jessop, 2013;

Quirk, 2004). For example, according to Jessop (2013), in 2011-12, five of the top 25 football teams with highest revenue in college football were in the SEC: the University of Alabama, \$82 million; the University of Georgia, \$75 million; the University of Florida, \$74 million, the University of South Carolina, \$48 million; and the Louisiana State University, \$69 million. The findings in the demographic analysis in this study are consistent with Caro and Benton's (2012) findings, which show stratification in revenue among the AQ and non-AQ football teams. Based on these findings, if an FBS football team is a member of one of the top AQ conferences, now referred to as the Power Five Conferences, it would be beneficial to remain in that conference, which is typically the case. However, if the opportunity presented itself for a non-AQ conference member to change to an AQ conference, higher education administrators should strongly consider this change due to the potential increase in football revenue. Differing from the FBS, FCS migrating football teams have greater football revenue than FCS stable football teams. Therefore, changing conference membership might be financially beneficial for FCS football teams if the opportunity were to arise.

Lastly, the demographic analysis revealed information about football home game day attendance. The results of this study suggest that FBS migrating football teams will likely not have any decline in home game day attendance. Both the FBS stable and FBS migrating football teams' game day attendance is consistent across the years. This could be explained by the loyalty and dedication of the FBS football teams' fan base, particularly fans of AQ conference teams. In fact, Paul et al. (2012) found that the top AQ conferences typically sell out most home games; whereas, football teams in non-AQ conferences have greater variation in their attendance, primarily due to the quality of their opponents (Paul et al., 2012). However, both FBS AQ and FBS non-AQ football games typically have large attendance because the smaller non-AQ

football teams enjoy having the larger AQ football teams play in their stadium, even when the non-AQ teams are likely to lose the game (Paul et al., 2012). Additionally, fans want to be at the game in case their team is able to upset a more competitive AQ team.

FBS football teams, both stable and migrating, have higher football brand equity than FCS football teams' brand equity. Based on the Gladden et al. (1998) brand equity framework, one of the consequences of an increase of brand equity is an increase in marketplace perception that includes support and loyalty. Migrating football teams in the FCS subdivision should expect to have an increase in home game day attendance. This could be because the migrating football team entered a new, more competitively balanced conference, which in turn, drew more fans because of the increase in the uncertainty of outcome in the game (Paul et al., 2012; Quirk, 2004).

Additionally, Price and Sen (2003) validate this finding since they found that the "quality of both teams, traditional rivalry, and membership of specific conferences" (p. 35) influenced the volume of home game day attendance. Furthermore, the FCS migrating football teams should have an increase in football brand equity, which in turn, according to the Gladden et al. (1998) framework, could lead to a more exciting game day atmosphere.

Implications of the Findings from the Research Questions

Based on the findings of this study, FBS migrating football teams should not expect to have any significant changes in their football teams' brand equity, nor should FBS stable football teams be concerned about changes in their football brand equity as the result of new conference members. FBS stable football teams, especially those in AQ conferences, generally have high and established football brand equity, so their brand equity should not be affected by the addition of new conference members (Caro & Benton, 2012). For conferences that have members

migrate out, the conference will have to acquire new conference members in order to remain competitive and vibrant as a conference (Bullinger, 2012). If a conference does not replenish its conference after the loss of members, it will likely have to compensate through merging with another conference or in the worse case scenario, such as in the Western Athletic Conference (WAC), discontinue the conference's participation in football (Rhoads, 2004). For example, Bullinger (2012), Quirk (2004), and Rhoads (2004) all examined competitive imbalance in the WAC, which ultimately led to the discontinuation of the conference's participation in college football in 2013. Perline and Stoldt's (2007) study examined how competitive balance changed when football teams from the Big 8 Conference merged to form the Big 12 Conference.

Based on the findings of the current study, migrating football teams in the FCS should expect to have considerably higher football brand equity than football teams that remain stable within their conferences. If the current trends continue, it would be advantageous for FCS football teams to change conferences because football brand equity is higher for migrating football teams over stable football teams. One reason FCS stable football teams might have lower football brand equity than migrating football teams is because the migrating football teams are either moving to more competitive conferences or even reclassifying to the FBS subdivision, leaving the stable conference members in conferences with lower brand equity. For example, FCS powerhouses Appalachian State and Georgia Southern left the FCS for the FBS in July of 2014 (O'Day, 2014). When the top teams leave the FCS subdivision for the FBS, they leave stable football teams behind in conferences with less competitive and successful teams that have lower levels of football brand equity. This could, in turn, have a negative effect on FCS conferences' overall brand equity, as well as on the brand equity of individual conference members. Weiner (2011) found that new conference members would likely be in the lower 50

percent of the newly-joined conference. These teams may also dilute the exiting competition level in the stable football teams' conference, thereby reducing the overall conference brand equity and, potentially, the teams' brand equity. While there is no research on changes in conference membership in the FCS, one could speculate that these FBS findings might be true in the FCS as well.

Lastly, for conferences that are considering inviting new football teams into their conference, the football brand equity model can be used to quantify the value of brand equity of football teams to assess the value of individual teams in the conference to be joined. Conferences that are considering acquiring new members can also assess the brand equity of the football teams moving into their conference.

Delimitations and Limitations

The first delimitation for this study is that only Division I football teams were included in the study sample. Secondly, this study's sample was delimited to include only football teams that were members of an FBS or FCS conference; football teams with an independent status and football teams that reclassified from one division or subdivision to another were excluded from this study (see Appendix C). Finally, this study was delimited to the time frame between 2003 and 2012. The main limitation for this study was that some of the data included was self-reported by each institution.

Recommendations for Future Research

Though the current study provided valuable insight into the effects of conference realignment upon stable and migrating football teams' brand equity, this study created a myriad of potential opportunities for future research related to this important topic. The following are

some of the researcher's recommendations for further research on the topics of conference realignment and college football brand equity.

First, further research could explore the possibility of creating a more comprehensive football brand equity model that includes both antecedents and consequences of football brand equity. The justification of funding college athletics, particularly football, is a concern for many colleges and universities, particularly those participating in the FCS subdivision. The ability to measure the brand equity of college football could prove to be an invaluable tool. The results of the current study along with the Gladden et al. (1998) intercollegiate athletics conceptual framework have the potential to provide the compass and structural equation modeling (SEM) that would allow future researchers to create a credible model that could be used by decision makers in higher education to make informed, research-based decisions regarding their football teams and institutions.

Second, in order to understand the brand equity of conferences, further research could use the football brand equity model developed in this study to examine changes in football brand equity according to conference. This study examined football brand equity for football teams participating in Division I FBS and FCS subdivisions according to their stability status as either stable or migrating football teams. However, this study did not examine changes in football brand equity according to conference. As major changes are made to the structure of Division I subdivisions, it may be necessary to re-work the model slightly or look at it from a new point of view. The current model is flexible and can be adapted to the new structure. However, research that provided further insight into the dynamics of conference brand equity would be valuable, especially for leaders who are considering conference realignment or reclassification. For example, understanding football brand equity by conference could prove to be valuable in regards to the recent NCAA vote that gives the Power 5 conferences autonomy.

A third recommendation is that future researchers should consider conducting a qualitative research inquiry, such as a case study, on football brand equity, inviting football teams that have remained stable in a conference or that have migrated from one conference to another to participate. Qualitative research would give a depth and breadth to the concepts that may not be measured in the quantitative studies suggested so far. The perceptions of fans and university stakeholders could be a part of this research and give a voice to those that are a valuable part of the brand equity conversation. In a qualitative study, the researcher could better understand the motivation for changes in conference. The Gladden et al. (1998) intercollegiate athletics brand equity conceptual framework would be applicable in qualitative studies, as well as in quantitative research, such as the current study. The qualitative study together with the quantitative work already completed would be a powerful pair.

Fourth, the football brand equity measurement created in this study that was based on the Gladden et al. (1998) intercollegiate athletics brand equity framework could be modified and used by researchers to measure brand equity in other intercollegiate athletic sports, such as basketball or baseball. Understanding how brand equity relates to intercollegiate athletics in general and to a wide range of specific sports could be helpful to administrators of higher education. This could assist in making decisions for a broad range of intercollegiate teams; thus, allowing the decision to change conferences a truly holistic one. Athletic directors might appreciate having a model that encompasses other valuable sports programs.

As a fifth recommendation, future research could use the football brand equity model in this study to examine how football brand equity correlates to institutional benefits of football success, such as an increase in quantity and quality of applications (Anderson, 2012; Kramer & Trivette, 2012; Pope & Pope, 2009) or an increase in institutional exposure (Caro & Benton, 2012; Goidel & Hamilton, 2006; Roy et al., 2008). University administrators could use this expanded research to justify conference change in areas across the university. Decisions to change conferences are often

expensive and research on how conference brand equity could benefit the entire institution could help make the case when looking to reallocate university funds to this type of project.

Sixth, future research could replicate this study at a later point in time to examine how conference realignment has influenced football teams' brand equity for a longer period of time. For example, in this study, several football teams such as the University Texas A&M University and the University of Nebraska, changed conferences in 2011 and only one year after the conference movement was examined. This would be a more inclusive study that covers a longer period of time to help validate this study's findings and solidify some of the more inconsistent trends discovered.

Lastly, college football is fluid and in constant flux. Most recently, in August 2014, the NCAA Division I Board of Directors voted to give the top five conferences, including the ACC, Big Ten, Big 12, Pac-12, and SEC, more autonomy (Bennett, 2014; Tracy, 2014). These five conferences, known as the "Power 5," would have the ability to provide athletes more benefits, such as stipends, four-year scholarships, and long-term medical coverage, which are all controversial issues regarding intercollegiate athletics, the NCAA, and higher education (Bennett, 2014; Russo, 2014; Trahan, 2014). With these NCAA changes, future research could investigate how the autonomy given to the Power 5 affects football teams' brand equity.

Conclusion

College football will continue to be an integral part of America's culture, as well as deeply entwined with America's colleges and universities. Furthermore, college football is not just about on the field success, entertainment, and generated revenue, but also about the benefits it can provide colleges and universities. This study used the Gladden et al. (1998) intercollegiate athletics brand equity conceptual framework to develop a football brand equity model to measure changes in football brand equity for stable and migrating football teams in the context of conference realignment that could be used by administrators in higher education to make

adjustments to their football program in order to optimize the benefits that college football can potentially provide colleges and universities. This study was an attempt to positively contribute to the existing body of literature related to intercollegiate athletics by generating a foundational model of football brand equity and addressing the gap in literature left by limited research on the effects of conference realignment. This study will hopefully lead to additional research on college football brand equity and the development of a more comprehensive football brand equity model.

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APPENDICES

Appendix A

FBS Football Teams included in the Study

Team	Stability Status
Akron Zips	Stable
Alabama Crimson Tide	Stable
Alabama-Birmingham (UAB) Blazers	Stable
Arizona Wildcats	Stable
Arizona State Sun Devils	Stable
Arkansas Razorbacks	Stable
Arkansas State Red Wolves	Stable
Auburn Tigers	Stable
Ball State Cardinals	Stable
Baylor Bears	Stable
Boise State Broncos	Migrating
Boston College Eagles	Migrating
Bowling Green State Falcons	Stable
Buffalo Bulls	Stable
California Golden Bears	Stable
California – Las Angeles (UCLA) Bruins	Stable
Central Florida Knights	Migrating
Central Michigan Chippewas	Stable
Cincinnati Bearcats	Migrating
Clemson Tigers	Stable
Colorado Buffaloes	Migrating
Colorado State Rams	Stable
Duke Blue Devils	Stable
East Carolina Pirates	Stable
Eastern Michigan Eagles	Stable
Florida Gators	Stable
Florida State Seminoles	Stable
Fresno State Bulldogs	Migrating
Georgia Bulldogs	Stable
Georgia Tech Yellow Jackets	Stable
Hawaii Warriors	Migrating
Houston Cougars	Stable
Idaho Vandals	Migrating
Illinois Fighting Illini	Stable
Indiana Hoosiers	Stable
Iowa Hawkeyes	Stable
Iowa State Cyclones	Stable
Kansas Jayhawks	Stable
Kansas State Wildcats	Stable

Appendix A continues

Appendix A continued

Team	Stability Status
Kent State Golden Flashes	Stable
Kentucky Wildcats	Stable
Louisiana-Lafayette Ragin' Cajuns	Stable
Louisiana Monroe Warhawks	Stable
Louisiana Tech Bulldogs	Stable
Louisiana State (LSU) Tigers	Stable
Louisville Cardinals	Migrating
Marshall Thundering Herd	Migrating
Memphis Tigers	Stable
Miami (FL) Hurricanes	Migrating
Miami (Ohio) RedHawks	Stable
Michigan Wolverines	Stable
Michigan State Spartans	Stable
Middle Tennessee Blue Raiders	Stable
Minnesota Golden Gophers	Stable
Mississippi Rebels	Stable
Mississippi State Bulldogs	Stable
Missouri Tigers	Migrating
Nebraska Cornhuskers	Migrating
Nevada – Las Vegas (UNLV) Rebels	Stable
Nevada Wolf Pack	Migrating
New Mexico Lobos	Stable
New Mexico State Aggies	Migrating
North Carolina Tarhills	Stable
North Carolina State Wolfpack	Stable
North Texas Mean Green	Stable
Northern Illinois Huskies	Stable
Northwestern Wildcats	Stable
Ohio Bobcats	Stable
Ohio State Buckeyes	Stable
Oklahoma Sooners	Stable
Oklahoma State Cowboys	Stable
Oregon Ducks	Stable
Oregon State Beavers	Stable
Penn State Nittany Lions	Stable
Pittsburgh Panthers	Stable
Purdue Boilermakers	Stable
Rice Owls	Migrating
Rutgers Scarlet Knights	Stable
San Diego State Aztecs	Stable
San Jose State Spartans	Stable

Appendix A continues

Appendix A continued

Team	Stability Status
South Carolina Gamecocks	Stable
South Florida Bulls	Migrating
Southern California (USC) Trojans	Stable
Southern Methodist (SMU) Mustangs	Migrating
Southern Mississippi Golden Eagles	Stable
Stanford Cardinals	Stable
Syracuse Orange	Stable
Tennessee Volunteers	Stable
Texas Longhorns	Stable
Texas A&M Aggies	Migrating
Texas Christian (TCU) Horned Frogs	Migrating
Texas – El Paso (UTEP) Miners	Migrating
Texas Tech Red Raiders	Stable
Toledo Rockets	Stable
Tulane Green Wave	Stable
Tulsa Golden Hurricane	Migrating
Utah Utes	Migrating
Utah State Aggies	Migrating
Vanderbilt Commodores	Stable
Virginia Cavaliers	Stable
Virginia Tech Hokies	Migrating
Wake Forest Demon Deacons	Stable
Washington Huskies	Stable
Washington State Cougars	Stable
West Virginia Mountaineers	Migrating
Western Michigan Broncos	Stable
Wisconsin Badgers	Stable
Wyoming Cowboys	Stable

Appendix B

FCS Football Teams included in the Study

Team	Stability Status
Akron Zips	Stable
Alabama A&M Bulldogs	Stable
Alabama State Hornets	Stable
Albany Great Danes	Stable
Alcorn State Braves	Stable
Appalachian State Mountaineers	Stable
Arkansas Pine Bluff Lions	Stable
Bethune-Cookman Wildcats	Stable
Brown Bears	Stable
Bucknell Bison	Stable
Butler Bulldogs	Stable
Central Connecticut State Blue Devils	Stable
Charleston Southern Buccaneers	Stable
Chattanooga Mocs	Stable
Citadel Bulldogs	Stable
Coastal Carolina Chanticleers	Stable
Colgate Raiders	Stable
Columbia Lions	Stable
Cornell Big Red	Stable
Dartmouth Big Green	Stable
Davidson Wildcats	Stable
Dayton Flyers	Stable
Delaware Fightin Blue Hens	Migrating
Delaware State Hornets	Stable
Drake Bulldogs	Stable
Duquesne Dukes	Migrating
Eastern Illinois Panthers	Stable
Eastern Kentucky Colonels	Stable
Eastern Washington Eagles	Stable
Elon Phoenix	Stable
Florida A&M Rattlers	Stable
Fordham Rams	Stable
Furman Paladins	Stable
Georgia Southern Eagles	Stable
Gardner-Webb Runnin' Bulldogs	Stable
Georgetown Hoyas	Stable
Grambling State Tigers	Stable
Harvard Crimson	Stable
Holy Cross Crusaders	Stable

Appendix B continues

Appendix B continued

Team	Stability Status
Howard Bison	Stable
Idaho State Bengals	Stable
Illinois State Redbirds	Stable
Indiana State Sycamores	Stable
Jacksonville Dolphins	Stable
Jacksonville State Gamecocks	Stable
Jackson State Tigers	Stable
James Madison Dukes	Migrating
Lafayette Leopards	Stable
Lehigh Mountain Hawks	Stable
Liberty Flames	Stable
Maine Black Bears	Migrating
Mississippi Valley St. Delta Devils	Stable
Missouri State Bears	Stable
Monmouth Hawks	Stable
Montana Grizzlies	Stable
Montana State Bobcats	Stable
Morehead State Eagles	Stable
Morgan State Bears	Stable
Murray State Racers	Stable
New Hampshire Wildcats	Migrating
North Carolina A&T Aggies	Stable
Northern Iowa Panthers	Stable
Nicholls State Colonels	Stable
Norfolk State Spartans	Stable
Northern Arizona Lumberjacks	Stable
Northwestern St. Demons	Stable
Pennsylvania Quakers	Stable
Portland State Vikings	Stable
Prairie View A&M Panthers	Stable
Princeton Tigers	Stable
Rhode Island Rams	Migrating
Richmond Spiders	Migrating
Robert Morris Colonials	Stable
Southern Illinois Salukis	Stable
Sacramento State Hornets	Stable
Sacred Heart Pioneers	Stable
Sam Houston State Bearkats	Stable
Samford Bulldogs	Migrating
San Diego Toreros	Stable
South Carolina State Bulldogs	Stable

Appendix B continues

Appendix B continued

Team	Stability Status
Southeast Missouri St. Redhawks	Stable
Southern Jaguars	Stable
St. Francis U Red Flashes	Stable
Stephen F. Austin Lumberjacks	Stable
Tennessee-Martin Skyhawks	Stable
Tennessee State Tigers	Stable
Tennessee Tech Golden Eagles	Stable
Texas Southern Tigers	Stable
Towson Tigers	Migrating
Valparaiso Crusaders	Stable
Villanova Wildcats	Migrating
Virginia Military Institution Keydets	Stable
Weber State Wildcats	Stable
Western Carolina Catamounts	Stable
Western Illinois Leathernecks	Stable
William & Mary Tribe	Migrating
Wofford Terriers	Stable
Yale Bulldogs	Stable
Youngstown State Penguins	Stable

Appendix C

Football Teams Excluded from the Study

Team	Exclusion Reason	Year(s)
Army Black Knights	Independent Status	2005 - 2012
Austin Peay Governors	Independent Status	2006
Brigham Young Cougars	Independent Status	2011 - 2012
Bryant Bulldogs	Independent Status	2008
Cal Poly Mustangs	Independent Status	2003 - 2004
Campbell Fighting Camels	First Season	2008
Central Arkansas Bears	First Season	2006
Connecticut Huskies	Independent Status	2003
E. Tennessee St. Buccaneers	Discontinued	2003
Florida Atlantic Owls	Independent Status	2003 - 2004
	Reclassified: FCS to FBS	2005
Florida Int. Panthers	Independent Status	2003 - 2004
	Reclassified: FCS to FBS	2005
Georgia State Panthers	First Season	2010
Hofstra Pride	Discontinued	2009
Iona Gaels	Last Season	2008
LaSalle Explorers	Discontinued	2007
Marist Red Foxes	Independent Status	2008
Massachusetts Minutemen	Reclassified: FCS to FBS	2012
Navy Midshipmen	Independent Status	2003 - 2004
N. Carolina Central Eagles	Independent Status	2007 - 2009
North Dakota	Reclassified: Division II to FCS	2008
N. Dakota St. Bison	Reclassified: Division II to FCS	2004
Northeastern Huskies	Discontinued	2009
Northern Colorado Bears	Independent Status	2003 - 2004
Notre Dame Fighting Irish	Independent Status	2003 - 2012
Old Dominion Monarchs	Independent Status	2009 – 2010
Presbyterian Blue Hose	Independent Status	2007 - 2008
Savannah State Tigers	Independent Status	2003 - 2009
SE Louisiana Lions	Independent Status	2003 - 2004
Sienna Saints	Discontinued	2003
South Alabama Jaguars	First Season	2009
	Reclassified: FCS to FBS	2012
S. Dakota Coyotes	First Season	2004
S. Dakota St. Jackrabbits	First Season	2004
S. Utah Thunderbirds	Independent Status	2003 - 2004
St. Mary Knights	Independent Status	2003
Temple Owls	Independent Status	2005
UTSA Roadrunners	Independent Status	2011

Appendix C continues

Appendix C continued

Football Teams Excluded from the Study

Team	Exclusion Reason	Year(s)
Texas State Bobcats	Independent Status	2011
Troy Trojans	Independent Status	2003
W. Kentucky Hilltoppers	Reclassified: FCS to FBS	2009
Winston Salem Rams	Independent Status	2006 - 2009