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FACTORS INFLUENCING BASEBALL FANS' BRAND LOYALTY:

A COMPARISON OF FLORIDA MARLINS

AND TAMPA BAY DEVIL RAYS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

Lynn University

By

Yun-Tsan Lin

2007

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**FACTORS INFLUENCING BASEBALL FANS' BRAND LOYALTY:
A COMPARISON OF FLORIDA MARLINS
AND TAMPA BAY DEVIL RAYS**

Yun-Tsan Lin

Lynn University, 2007

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ACKNOWLEDGMENT

As an international student who speaks English as a second language, to pursue a doctorate degree was a difficult and long process for me. Finally, I overcame those obstacles and stood on the top of this huge academic mountain. Although to achieve the career is pleasurable, I have realized that it is just a start for me to be excellent – a long way to go. Once I took a course of research methods, and the professor told us that we should not be complacent how much we have achieved when we stand on the top of a mountain. Rather, we should recognize that there are thousands of mountains in front of us that we have yet to overcome. We should continually take challenges. There are many individuals who have encouraged and supported me throughout this long process. I wish take this opportunity to show my appreciation to them.

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FACTORS INFLUENCING BASEBALL FANS' BRAND LOYALTY:

A COMPARISON OF FLORIDA MARLINS

AND TAMPA BAY DEVIL RAYS

Yun-Tsan Lin

Abstract

Factors influencing Major League Baseball fans' brand loyalty is important because these fans bring significant financial benefits to the industry every year, and stimulate economic growth in the United States. An intercept and quota sampling plan resulted in a sample of 285 Florida Marlins fans and 213 Tampa Bay Devil Rays fans for this comparative and correlational study. The purpose was to test for an explanatory relationship among fans' characteristics, influencing factors, and the loyalty of fans to a winning team and to a losing team. Comparative and multiple regression analyses tested hypothesized relationships among fan characteristics, brand association attributes, benefits, and attitudes and brand loyalty using the Team Association Questionnaire (Gladden & Funk, 2002). Cronbach's alphas and exploratory factor analyses estimated reliability and established validity of the measures for this study.

Three dimensions of brand association (attributes, benefits, and attitudes) were significant explanatory variables of brand loyalty. However, fan characteristics did not influence fans loyalty. Attitudes influenced fans associating with a team, suggesting short term strategies for this rational component of sports fans' behavior. However, "implementing short-term tactics does not necessarily guarantee long-term and consistent revenue streams" (Gladden & Milne, 1999, p. 21). Fans might support a team because the team has a winning record, super star players, a renowned head coach, or an attractive

stadium. However, this dimension is insufficient to explain why the fans also strongly support a team when these factors are not present.

Findings supported the dimension of “benefits” and how it plays a role in explaining irrational sport fans’ behavior and the loyalties of fans of both winning and losing teams. Sports provide fans with a temporary escape from their daily routines. Sport teams also provide a platform for fans to identify with the team, to associate themselves with the same peer groups, or to share memories with one other. For the dimension of attitudes, the affective reaction of fans was also an important factor influencing brand loyalty. Structural equation modeling in future studies may further clarify relationships in hypothesized models involving fan characteristics, brand association attributes, benefits, and attitudes and brand loyalty.

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CHAPTER I

INTRODUCTION

Introduction and Background to the Problem

The sports industry plays a significant role in the world economy. In the United States, it is the 11th largest industry (Bristow & Sebastian, 2001). Mitchell, Montgomery, and Mitchell (2003) reported “Americans spent \$213.5 billion on sports in 1999, a whopping \$763 per capita” (para. 2). Therefore, it is important to understand the factors that influence purchase decisions and the brand loyalty of professional sports fans to promote effective brand management strategies. Research reports that most customers are significantly less loyal to inferior brands (Bristow & Sebastian, 2001). However, fans of professional sports exhibit strong loyalty to their teams, even when sports teams are not playing well (Bristow & Sebastian, 2001).

Many researchers have explored the influences on fans’ psychological commitment, motivation, attendance, involvement, and brand loyalty (Bristow & Sebastian, 2001; End, Dietz-Uhler, Demakakos, Grantz, & Biviano, 2003; Funk & James, 2004; Funk, Ridinger, & Moorman, 2004; Gladden & Funk, 2001; James & Ridinger, 2002; Pan, Zhu, Gabert, & Brown, 1999; Richardson, 2004; Wann, Allen, & Rochelle, 2004; Wann, Waddill, & Dunham, 2004; Distz-Uhler & Murrell, 1999). These studies have found that various factors are highly correlated to fans’ emotional involvement. Fans were “more likely to report identifying with successful teams than unsuccessful teams” (End et al., 2003, p. 140) and researchers named this psychological reaction “Bask in the reflected Glory” (BIRG). Other researchers argued that fans strongly identify with their teams even when the teams are losing (Bristow & Sebastian, 2001; Ha,

2005). Therefore, different factors influence fans of successful teams and unsuccessful teams.

Applying Pareto's Principle, the "20-80" rule, researchers proposed that 20% of loyal fans generated 80% of revenue in the sport business (Mullin, Hardy, & Sutton, 1993). This finding indicated that team management should concentrate on retaining and recruiting more loyal fans to maintain a long-term sustainable benefit for the sport business. The first step in forming customer brand loyalty is linking an attitude with the brand (Dick & Basu, 1994). Researchers reported that an attitude is "a general and enduring positive or negative feeling about some person, object or issue that has the ability to direct behaviors" (Funk, Haugtvedt & Howard, 2000, p. 128). Therefore, to investigate fans' brand loyalty, the antecedents that influence fans' attitude to a team should be examined.

Several models attempted to explain the factors that influence brand loyalty. Bristow and Sebastian examined a tripartite model that found three factors: "perceived brand-performance fit, social and emotional identification with the brand, habit and a long history with the brand" (2001, p. 259). Gladden and Funk (2001) examined a team associate model based on Keller's *customer-based brand equity theory* which 16 factors influence brand loyalty: success, star player, head coach, management, logo design, stadium, product delivery, tradition, escape, fan identification, peer group acceptance, nostalgia, pride in place, importance, knowledge, and affective interaction. Gounaris and Stathakopoulos (2004) examined three dimensional variables (consumer drivers, brand drivers and social drivers) of brand loyalty, and reported possible outcomes of consumers' behavior: buy nothing, buy an alternative brand, word-of-mouth

communication, or visit another store. Tapp (2003) found two kinds of brand loyalty, and tested a model of attitudinal and behavioral loyalty among football fans. These factors are vicarious enjoyment, social influence of other fans, habit, change in career/job, change in family circumstance, self image, and brand symbolism. Taylor and Hunter (2003) stated that loyalty could be influenced by brand attitude and satisfaction. They found four factors in loyalty: trust, affect, resistance and value. Selnes (1993) used a conceptual model testing the relationship among quality, customer satisfaction, brand reputation, and intended loyalty. Gladden and Milne (1999) reported that brand equity consists of perceived quality, brand awareness, brand association and brand loyalty. They used a conceptual framework of brand equity in the team sport setting to test the three factors: team-related, organization-related and market-related.

Based on the literature review, some issues are needed to be explored by the researcher in this study. Why do professional sports fans exhibit strong loyalties to professional sports teams even when sports teams are losing? What factors drive fans to associate with a particular team? Can these factors sufficiently explain and predict professional sport fans' brand loyalty? In addition, the difference of fan characteristics and the influencing factors between teams with winning and losing records has never been studied. This poses an additional question: Are there differences in fans' characteristics, brand association (attribute, benefit, and attitude factors), and brand loyalty of fans of winning and losing baseball teams (Florida Marlins and Tampa Bay Devil Rays)?

Purpose of the Study

Numerous research studies have investigated the factors that influence fans' loyalty to sports teams. However, no empirical studies have compared these influences on fans of winning and losing teams. Therefore, the purpose of this non-experimental, causal comparative, exploratory, and explanatory study will explain the relationship between fans' characteristics, influences, and loyalty to Major Baseball League (MLB) teams (a winning team, the Florida Marlins and a losing team, the Tampa Bay Devil Rays). This study would:

1. Examine different factors that affect fans' brand loyalty to MLB teams.
2. Investigate the explanatory relationships among fan characteristics, influencing factors, and fan loyalty to MLB teams.

Definition of Terms

Independent Variables

Brand Association

Theoretical definition. Brand association refers to "anything linked in memory to a brand" (Aaker, 1991, p. 109) and it can be classified in terms of attributes, benefits, and attitudes (Keller, 1993).

Operational definition. In this study, brand association will be measured according to the three categories of attributes, benefits, and attitudes.

Attributes

Theoretical definition. Attributes are "the descriptive features that characterize a product or service – what a consumer thinks the product or service is or has and what is involved with its purchase or consumption" (Keller, 1993, p. 4) and attributes will

become meaningful when customer establishing an association and making their decision –buy or not buy a brand (Aaker, 1991).

Operational definition. In this study, the attributes subscale of *Team Association Questionnaire* developed by Gladden and Funk (2001) will be measured by success, star player, head coach, management, logo design, stadium, product delivery, and tradition.

Benefits

Theoretical definition. Benefits are “the personal value consumers attach to the product or service attributes – that is, what consumers think the product or service can do for them” (Keller, 1993, p. 4). Thus, benefits are customers’ feelings when buying or using the brand (Aaker, 1991).

Operational definition. In this study, the benefits subscale of *Team Association Questionnaire* developed by Gladden and Funk (2001) will be measured by escape, fan identification, peer group acceptance, nostalgia, and pride in place. See Appendix A.

Attitudes

Theoretical definition. Attitudes are “a general and enduring positive or negative feeling about some person, object or issue that has the ability to direct behaviors” (Funk, 2000, p. 128). For customers, attitudes are the overall evaluation of a brand (Keller, 1993).

Operational definition. In this study, the attitudes subscale of the *Team Association Questionnaire* developed by Gladden and Funk (2002) will be measured by importance, knowledge, and affective reactions. See Appendix A.

Dependent Variable

Brand Loyalty

Theoretical definition. Brand loyalty is “a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same brand set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior” (Oliver, 1999, p. 34).

Operational definition. In this study, brand loyalty will be measured by the four items of *Team Association Questionnaire* developed by Gladden and Funk (2001). See Appendix A.

Contextual Variables

Fans Characteristics

Theoretical definition. A fan is someone who is enthusiastic or “fanatical” about a particular sports team or athletes (Rodefer, 2003; Wann, 1995).

Operational definition. In this study, fans will include those who attended Florida Marlins and/or Tampa Bay Devil Rays games during the 2006 regular season. Fans’ gender, age, education, marital status, annual personal income, and time travel to games will be measured by the researcher.

Winning Team and Losing Team

Theoretical definition. A winning team has a higher number of won games than number of lost games under certain circumstances or over a specific period of time, such as a season. A losing team has a higher number of lost games than number of won games under certain circumstances or over a specific period of time (Alder, 2005).

Operational definition. In this study, winning team will have won at least 50 percent of its games from the 2001 to 2005 seasons. Losing team will have won less than 50 percent of their games from the 2001 to 2005 seasons. Based on the definition, Florida Marlins is defined as a winning team which has an average winning percentage of 54% during 2001 to 2005 regular seasons. See Appendix H. Tampa Bay Devil Rays is defined as a losing team which has an average winning percentage of 37% during 2001 to 2005 regular seasons. See Appendix H.

Justification

The justification for this study is that it is significant, researchable and feasible. The significance of this study is that no empirical study has explored the differences that affect the loyalty of fans of winning and losing teams. In addition, there are no empirical study has compared the winning and losing team on exploring the explanatory relationships between the influencing factors and brand loyalty. Thus, the findings encourage managers of sports team management to develop applicable marketing and management strategies for winning teams and for losing teams.

This study is researchable because the theoretical framework, research questions, hypotheses, and all variables can be measured. The research is feasible because the fundamental concepts of theoretical framework can be assessed. The amount of time and money needed to conduct this research is adequate and participants are available.

Delimitations and Scope

Delimitations are as follows:

1. This study is restricted to Major League Baseball fans of Florida Marlins and Tampa Bay Devil Rays; other MLB teams will not be included from this study.
2. *The geographic setting is in the United States. Marlins and Devil Rays' fans that live in other countries will not be included from this study.*
3. The participants in this study must be able to read, write, and speak English or Spanish.

Organization of Study

This study presentation consists of five chapters. In Chapter I, an overview of this study was presented with the background and purpose of the study problem, definition of variables, justification, and delimitation/scope.

In Chapter II, a comprehensive literature review of consumers' (fans') brand loyalty is provided. *A critical analysis of theoretical and empirical literature about fans' characteristics, brand association factors, measurement of fans, factors influencing fans' brand loyalty were presented, led to the conclusions and recommendations.* The theoretical framework (proposed framework) was derived from the literature gap. Based on the proposed framework, two research questions and five hypotheses were formulated.

Chapter III presented the research methodology, research design, identify the population, sampling plan, instruments, data analysis, ethical aspects of human subjects, methods of data analysis, and the evaluation of research methods.

Chapter IV presented the statistic results of this study which are composed of reliability analysis, exploratory factor analysis (construct validity), descriptive analysis, independent sample t test, and multiple linear regression.

Chapter V presented a description with interpretations of the findings, practical implications, conclusions, research limitations, and recommendations for future study.

CHAPTER II

LITERATURE REVIEW, THEORETICAL FRAMEWORK, RESEARCH QUESTIONS, AND HYPOTHESES

Review of the Literature

Chapter II analyzed the theoretical and empirical literature to discover the factors that influence fans' brand loyalty to sports teams and to identify future areas of scholarly inquiry. The critical review of theoretical and empirical literature found that numerous antecedents influence fans' involvement, motivation, and identifies them with the teams. This would result in fans becoming brand loyal. Based on the recommendations presented at the end of this chapter, a literature gap was found and the research proposal was drawn on that basis. A theoretical framework was constructed and hypotheses were developed to test based on this theoretical framework. The dependent and independent variables were reviewed in the following section.

Sports Fans

“Much of the research on loyalty has focused on fan identification with the team” (Richardson, 2004, p. 90). To explain the fans' behavior, team identification is the significant component. “Team identification refers to a spectator's involvement with and psychological connection to a sport team” (Wann & Schrader, 2000, p. 160). This association that fans develop with their teams is a type of in-group favoritism. Thus, this connection helps people develop a social identity by attaching themselves to a group. The interaction among in-group members is more frequent than that of out-group members (Lo, 2001). A person may have higher positive affections toward in-group members than to out-group members. Therefore, “Highly identified sport fans would be

more likely to present themselves as a fan of a specific team to a rival supporter than marginally identified fans” (Wann, Rohalty, & Roberts, 2000, p. 199).

Social Identity Theory

Tajfel and Turner (1979) introduced their seminal theory of social identity. This theory is based on an individual’s group identity. This theory identifies three constructs of an individual’s position within a group: social categorization, social comparison, and social identity. There are four propositions. First, individuals classify numerous stimulations from surroundings to simplify the information and to understand self-environment better. Second, individuals may identify themselves with the group to which they belong by social classification. Third, individuals compare the characteristics of their own group with those of other groups by social comparison. Finally, individuals consider the traits of their own group as more positive and applicable than the traits of other groups (Lo, 2001).

Group identity influences on-group and in-group favoritism (Lo, 2001). This theory is socially significant for addressing essential issues about an individual’s group identity in the disciplines of human resource management and marketing. The theory has been adapted to social psychology, human resource management, psychology, and marketing. This is the predominant theory used to examine individual group identity with well-developed propositions and strong empirical support.

Social identity theory can be applied to explore fans’ behavior from psychological aspects. Fandom is both a public and private experience, and both types of identity have been explored (Jacobson, 2001). Using this theory, Jacobson reported that two levels influence fans’ identity. The first level is an interpersonal network and

community-effect level. Fans are influenced by friends, family members, or geographic areas (support local team) on identity. The second level is symbolic, which is composed of team's name, logo, color, and fight song (Jacobson, 2001).

Social identity theory can explain the sports fans' self- and social-identification. Within this theory, researchers can find the factors that will encourage the sports fans to form a positive attitude toward the sports team, and to generate loyalty to specific teams. These factors are more psychological, such as habit and history, social and emotional identification, brand symbolism, basking-in-reflected-glory, and self-image (Tapp, 2004).

Factors Influencing Fans Associations

"A brand association is anything linked in memory to a brand" (Aaker, 1991, p. 109). Building brand association helps to create brand loyalty and brand equity/value. These values include "differentiating the brand, creating positive attitudes, generating a reason to buy the brand, helping consumers to process information, and providing a basis for extensions" (Aaker, 1991, p. 111). Exploring fans' associations is significant for the sport teams because it provides a foundation upon which to establish brand equity. "It is important for sport marketers to understand the type of associations consumers have when consuming a team sport product" (Gladden & Funk, 2001, p. 72). Thus, the following section will examine these factors from three types of associations (attributes, benefits, and attitudes) based on Keller's (1993) customer-based brand equity theory.

Customer-Based Brand Equity Theory

customer-based brand equity theory (Keller, 1993) draws upon on Aaker's (1991) brand equity theory. Researchers stated, "Brand equity has been viewed from a variety of perspectives" (Motameni & Shahrokhi, 1998, p. 275). From a customer perspective,

Keller (1993) introduced his conceptual theory of customer-based brand equity. This theory states that the dimensions of brand knowledge are composed of two constructs: brand awareness and brand image. Six sub-constructs, “brand recall, brand recognition, types of brand association, favorability of brand associations, strength of brand associations, and uniqueness of brand associations” (Keller, 1993, p. 4) are included in which the first two sub-constructs are components of brand awareness, and the other four sub-constructs are components of brand image.

The three types of brand association are attributes, benefits, and attitudes (Keller, 1993). Attributes are either non-product-related or product-related. Benefits can be functional, experiential or symbolic. The non-product related dimension consists of price, packaging, user imagery, and usage imagery. The major proposition in this theory is that “customer-based brand equity occurs when the consumer is familiar with the brand and holds some favorable, strong, and unique brand associations in memory” (Keller, 1993, p. 1). This theory is significant to marketing for addressing essential issues about brand equity from a customer perspective. The theory has been adapted to consumer behavior, education, psychology, market strategy and marketing communications. This is the predominant theory used to examine brand equity from a customer perspective with well-developed propositions and strong empirical support.

In the sports industry, a sports team can be seen as a “brand” and fans can be seen as “customers”. “Sport managers are beginning to view their teams, leagues, and properties as ‘brands’ to be managed” (Gladden & Funk, 2002, p. 54). Therefore, to explore factors that influence fans’ association, it is necessary to examine the types of customers’ associations. Customer-based brand equity theory can be used to explore and

explain why the customers associate with specific brands and further build brand image. Three types of association indicated by Keller (1993) are attributes, benefits, and attitudes. In the following section, factors influencing sports fans' associations will be addressed.

Brand association attribute factors. Keller stated that “attributes are those descriptive features that characterize a product or service – What a consumer thinks the product or service is or has and what is involved with its purchase or consumption” (1993, p. 4). Based on Keller’s (1993) concept, Gladden and Funk reported that “attributes are typically the physical features associated with a particular brand” (2001, p.72). In the sports industry, researchers indicated there are several attributes that fans associate with a particular team: team success, star player, head coach, team management, logo design, stadium/area, and product delivery (Bauer, Sauer, & Schmitt, 2005; Capella, 2002; Gladden & Funk, 2001; Gladden & Funk, 2002; Marcum & Green, 1985).

Brand association benefit factors. Keller (1993) stated that “benefits are the personal value consumers attach to the product or service attributes – that is, what consumers think the product or service can do for them” (Keller, 1993, p. 4). There are three types of benefits: functional, symbolic, or experiential. Unlike attributes, which consumers associate with physical features, benefits are more psychological. Based on Keller’s concept, Gladden and Funk reported that “benefits represent the psychological meaning and value consumers attach to the product” (2001, p. 72). In the sports industry, researchers found several benefit factors that fans associate with a particular team: escape, fan identification, peer group acceptance, nostalgia, and pride in place (Dietz-Uhler & Murrell, 1999; End, Dietz-Uhler, Demakakos, & Biviano, 2003; Funk, Ridinger,

Moorman, 2004; Gladden & Funk, 2001; Gladden & Funk, 2002; Sutton, McDonald, & Milne, 1997; Wann, Allen, & Rochelle, 2004).

Brand association attitude factors. Keller considered that “benefits are the personal value consumers attach to the product or service attributes – that is, what consumers think the product or service can do for them” (1993, p. 4). Based on Keller’s (1993) concept, Gladden and Funk indicate “attitudes possess distinct underlying properties (importance, knowledge, direct experience, and valence) that contribute to their degree of formation” (2002, p. 61). In the sports industry, researchers identified several attitude factors that fans associate with a team: importance (Krosnick, 1998), knowledge (Kallgren, & Wood, 1986; Davidson, Yantis, Norwood, & Montano, 1985), and affective reactions (Bassili, 1996; Funk, & Pastore, 2000). Funk stated that “important, knowledge, and affective reactions were strongly predictive of commitment to a professional baseball team” (2001, p. 131).

Measurement of Fan Attitudes and Behaviors

Sports Involvement Inventory scale. Shank and Beasley (1998) conducted a methodological study of sports involvement. They used a non-experimental, mixed-method design. They began with six interviews using gender comparisons (three males and three females). This was the first step in understanding of the involvement construct and developing the questionnaire. After the interviews, the Sports Involvement Inventory Scale was developed and 136 customers in Cincinnati completed the survey. Shank and Beasley’s literature review was thorough and current in comparing and contrasting measurement about sports involvement of fans. Sports involvement measures have been

adopted in a study of golf spectators and in a study of baseball fans (Shank, & Beasley, 1998).

Items for the Sports Involvement Inventory Scale and additional survey questions were generated from the literature review and the interviews. A non-probability, random sampling plan resulted in the data-producing sample of 136, but the response rate was not reported.

The eight items of the Sports Involvement Inventory Scale were used to examine the level of sports involvement. The base question of this sports involvement inventory begins with "To me, sports are." Responses are on a seven-point semantic differential scale, with polar responses for these eight items ranging from boring to exciting, interesting to uninteresting, valuable to worthless, appealing to unappealing, useless to useful, not needed to needed, irrelevant to relevant, important to unimportant. The questionnaire has seven scales, from weak to strong. The range of scores on the Sports Involvement Inventory is from eight (the lowest level of sports involvement) to 56 (the highest level of sports involvement). Data collection procedures were clearly described. Respondents were selected by random sampling. The questionnaire consisted of four sections. First, respondents completed the sports involvement inventory. Second, respondents were required to describe their media habits (television viewing, newspaper and magazine reading). Third, respondents were required to report the frequency of participation in sports events. Finally, demographic data was collected from the respondents.

Reliability estimates using coefficient alpha was 0.93 for internal consistency, and construct and criterion related validity were established. Findings supported the adequate

psychometric qualities of the Sports Involvement Inventory. Shank and Beasley's (1998) interpretation of these findings was that sports involvement was shown to be a relatively good predictor of sports-related behaviors after examining the demographic profile of those highly involved with sports and the relationship between sports involvement, sports-related media, sports event attendance, and sports participation. The findings also have several important implications, including the use of involvement as a variable to predict behavior, to segment individuals and to understand special groups of individuals, such as children or the elderly. Shank and Beasley recommended that the Sports Involvement Inventory be used to extend the knowledge of how the involvement construct can be used, and the need to examine the inventory's applicability to see if it is applicable to different sports. Future researchers might examine the relationship between sports involvement and sport motivation from the perspectives of the spectator.

Team Sport Involvement Scale. Funk, Ridinger, and Moorman (2004) conducted a methodological study of the relationship between consumer motives and involvement in professional sport teams. They used a non-experimental, mixed method, quantitative design, and conducted a four-phase study. First, the Sport Interest Inventory was refined to measure 18 antecedents of involvement via a series of focus groups. Second, survey questionnaires were generated to test reliability and validity. Third, the hypothesized measurement model was tested by using confirmatory factor analysis. Fourth, the relationships were examined by the researchers between the 18 antecedents of involvement (basketball knowledge, entertainment value, bonding with friends, community pride, socialization, drama, escape, excitement, bonding with family, interest in team, interest in player, role models, customer service, style of play, support women's

opportunity, interest in basketball, vicarious achievement, and wholesome environment) and four involvement facets of attraction, centrality of lifestyle, self-expression, and risk, using Team Sport Involvement Model (TSI Model). After the four developed phases, the Team Sport Involvement was developed and 623 fans (season ticket holders and single game attendees) completed the survey. Team sport involvement has been used also in a study of a scale development for sport fan motivation (Al-Thibiti, 2004).

A probability, simple random sampling plan resulted in the data-producing sample of 623, a response rate of 38.9% (Funk, Ridinger, & Moorman, 2004). The Team Sport Involvement was used to examine the relationship between professional sport fans' motives and involvement. Respondents were asked to complete a 7-point Likert scale from "strongly disagree" to "strongly agree" and to complete a demographic profile with gender, education, distance traveled, season ticket status, and self-reported behavior (how often attended games, how often watch games on television, and experience playing basketball). Reliability estimates using Cronbach's alpha ranged from .79 (drama and interest in players) to .94 (support women's opportunity) for internal consistency. According to correlation matrix, discriminate validity among the 18 antecedents with all correlation coefficients was well below the $r < .85$ benchmark. Data collection procedures were clearly described and respondents were selected from the Women's National Basketball Association (WNBA) database.

The interpretation of the finding was that "this study illustrates the utility of adopting a theoretical framework (Team Sport Involvement model) for understanding individual interest, motivation, and arousal related to an individual's involvement with a competitive sport team" (Funk, Ridinger, & Moorman, 2004, p. 52). This led to the

following conclusions. First, the findings encourage researchers to think more broadly about antecedents of team sport involvement. Second, by integrating the sport consumer behavior with leisure research, the study has explored the relationship between the 18 antecedents and the 4 dimensions of involvement. Finally, empirical test utilizing Team Sport Involvement Scale explained the difference in game attendance among the team's consumers. Funk, Ridinger, and Moorman (2004) noted five limitations. First, the present study measures the 18 antecedents and did not develop a scale for measuring each facet of involvement. Second, the study excluded some significant antecedents, such as "head coach." Third, more empirical studies are needed to test the TSI Model. Fourth, the data collection period was during the off-season. Therefore, the sample may not accurately represent the population during the regular season. Finally, data collection resulted in a small sample that may not be an accurate reflection of the population. Future studies should include more antecedents and apply the Team Sport Involvement to different sport settings.

Fan Behavior Questionnaire. Capella (2001) conducted a methodological study of sports fans' involvement. They used a non-experimental, quantitative design, and 168 respondents were generated from students and employees of a university in the south central region of the United States (70%), patrons of sports bars (21%), and former students and employees of a southeastern state university (9%). Capella's literature review was thorough and current in comparing and contrasting measurement about sports fans' involvement. Items of the scale were based on previous research and the author's experiences.

A non-probability, convenience sampling plan resulted in the data-producing sample of 168, a response rate of 97.1%. The 31 items of Fan Behavior Questionnaire based on 5-point Likert scale from “never” to “always” (frequency percentage) were used to measure sports fans’ emotionality, negative behavior, and positive behavior. Reliability estimates using Cronbach’s alpha reported by the researcher were from .77 (positive behavior) to .89 (emotionality) for internal consistency. Construct validity was established with two procedures: group differentiation and factor analysis. In the first procedure, an independent t-test was used to examine the group differences between negative behavior and emotionality. Evidence showed that “the instrument can differentiate between people based on whether they exhibit specific negative behaviors associated with extreme sports fans” (Capella, 2001, p. 33). Factor loadings using factor analysis ranged from the average of .19 (positive behavior) to .33 (emotionality) for the three constructs. The researcher reported that eight items needed revisions and rewording. Capella’s interpretation of these findings is that the Fan Behavior Questionnaire should be “revised, re-administered, and re-evaluated” (Capella, 2001, p. 35). This nevertheless led to the conclusion, “the Fan Behavior Questionnaire shows promise as an instrument that measures actual fan behaviors and relates them to the amount of emotionality, or emotional commitment, a person has to his or her team” (Capella, 2001, p. 35).

Team Association Questionnaire. Gladden and Funk (2001) conducted a methodological study of the link between fans’ brand associations and brand loyalty. They used a non-experimental, quantitative design, and conducted the study with three phases. First, they created 13 brand association dimensions for operational measure. Second, a pre-test with 134 undergraduate students was conducted to test the reliability.

Third, a national mail survey was used to gather the data from sport consumers of a geographically representative population. After these phases, the Team Association Questionnaire was developed and 929 sport consumers completed the survey. Gladden and Funk's literature review was thorough and current in comparing and contrasting measurement about team associations of fans. Team association measures were used in a study of Taiwanese baseball fans (Lin, 2004) and a study of sports magazine consumers (Gladden & Funk, 2002).

Subscales for the Team Associations Questionnaire were generated from the literature review of fans' association studies. One hundred and thirty-six samples were generated from subscribers to U.S. sport magazines, a response rate of 31.3%.

The 44 items of the Team Association Questionnaire examined the link between fans' associations and brand loyalty. Responses are on a 7-point Likert scale, from "strong disagree" to "strong agree." Data collection procedures were clearly described. Respondents were selected from the subscribers to a U.S. sport magazine. The questionnaire used to collect information consisted of three sections. First, respondents answered five general questions. Second, respondents were required to complete the Team Association Questionnaire. Third, demographic data was collected from the respondents.

Reliability estimates using coefficient alpha ranged from .68 (peer group acceptance) to .95 (escape) for internal consistency, and according to correlation matrix, discriminate validity among the 13 factors with all correlation coefficients well below the $r < .85$ benchmark. They reported that the Team Association Questionnaire provides empirical support for Keller's customer-based brand equity framework. Gladden and

Funk used “Keller’s conceptualization of brand associations as a guide, this study identified attributes and benefits that were predictive of brand loyalty in the U.S. team sport setting and provided preliminary support for Keller’s conceptualization of brand associations” (2001, p. 82). The findings have several important implications, including the use of team associations as the variables to predict fans’ behavior, and to measure team associations and brand loyalty in different sport settings. Limitations reported by Gladden and Funk (2001) are that the respondents completed the survey by identifying their favorite team first and then answering some questions about their feelings toward that team. Therefore, this study is “only generalizable to high committed fans of U.S. professional sport teams” (Gladden & Funk, 2001, p. 83). In addition, the response rate of 31.3 percent may be too low to represent the actual population. Future study might apply the Team Association Questionnaire to different sport settings and enhance the response rate via phone calls and/or follow-up mailings.

Sports Fans: Empirical Studies

Gwinner and Swanson (2003) examined the antecedents and sponsorship outcomes of fan identification. They used a non-experimental, causal comparative and quantitative design with 1,070 adult spectators at an afternoon university football game. Their literature review was thorough and current in contrasting theories about team identification. Researchers reported team identification as “the spectators’ perceived connectedness to a team and the experience of the team’s failing and achievements as one’s own” (Ashforth, & Mael, 1989, p. 26). Under this definition, it can be presented as a more specific instance of organizational identification. The propositions that were examined in the study were that highly-identified fans exhibit higher levels of sponsor

recognition, patronage, and satisfaction and have more positive attitudes toward sponsoring firms than do less identified fans. Empirical studies of antecedents and sponsorship outcome of fan identification were examined, identifying a gap in the literature about the factors affecting fan identification and influencing the consequence of sponsorship. A non-probability, accidental sampling plan resulted in the data producing sample of 1,070. There were several antecedent variables: perceived prestige, sports domain involvement, fan associations, sponsorship recognition, sponsor patronage, attitude toward sponsors and satisfaction with sponsor. "Perceived prestige" refers to spectator sports' ability to create a sense of community. "Sports domain involvement" is the degree to which individuals show interest in a particular sport in addition to their interest in a specific team. "Fan associations" means that the more contact that individuals maintain with a group, the more likely they are to see themselves as members of that group. "Sponsorship recognition" means that when firms sponsor a sports team, spectators may consider the sponsor as an in-group member. The outcome variable is fans' attitude toward the sponsor.

Gwinner and Swanson (2003) created a multi-item scale to measure the six antecedent variables, with a 7-point Likert scale ranging from strongly disagree, to strongly agree to gauge spectator identification. Reliabilities for each construct exceeded 0.85, with the highest being for attitude toward sponsors (0.94) and the lowest being for sports domain involvement (0.87). The validities for all the standardized factor loadings exceeded 0.68, and are significant. Data collection procedures were clearly described. Findings supported all of the hypotheses ($p < 0.001$) that team identification were positively related to fans perceived prestige, fans' involvement with the sports domain,

the number of fan associations with the university and team, the ability to identify sponsors, attitude toward sponsors, patronage behaviors toward sponsors; and satisfaction with sponsor.

Gwinner and Swanson (2003) found that fans who highly identify themselves with teams are more likely to exhibit positive outcomes related to sponsorship. This led to the conclusion that greater sponsorship effectiveness can be made by segmenting the sport spectator market according to the level of team identification. An implication for sports industry managers and marketers is that team identification is an important component of sponsorship effectiveness. Therefore, sponsors can develop effective strategies by considering team identification. The strength of the study is that team identification is an important consideration in sponsorship effectiveness. A limitation is that additional antecedent variables may be relevant for predicting team identification in some of these alternatively sponsored contexts. They generated several areas for future study. The first is to explore the impact of specific "reputation" types on team identification. The second is the impact that a school that is perennially considered a basketball powerhouse might have on team identification with that school's other athletic teams. Third, image transfer might be an important variable upon the outcome of sponsorship and team identification.

Internal validity strengths of this study are in hypothesis testing of propositions, in the reliability and validity of the measures of variables, and multivariate tests of hypotheses, resulting in a high level of data quality and data analysis. There also were clearly defined procedures for replication. Future studies should provide other variables

that might impact team identification, use different populations, and use random sampling.

Wann, Hunter, Ryan, and Wright (2001) studied the relationship between team identification and willingness of sport fans to consider illegal acts to assist their team. These acts included procuring illegal substances for athletes or helping them to cheat on their exams. They used a non-experimental, causal correlational, quantitative design of 71 college students. Wann, Hunter, Ryan, and Wright's literature review was thorough and current in comparing and contrasting the theory of social identity (Tajfel, & Turner, 1979) about highly identified fans concerning the team's successful or unsuccessful performance. Empirical studies of the link between team identification and willingness of sport fans to consider illegally assisting their team were examined. This resulted in Wann et al. (2001) testing the proposition that people with high levels of team identification would be more likely to consider such behavior.

A non-probability, convenience sampling plan resulted in a sample of 71 college students participating in exchange for extra credit in a psychology course. These college students were highly-identified fans of the University of Kentucky basketball team. The Sport Fandom Questionnaire (SFQ), Sport Spectator Identification Scale (SSIS), Sport Fan Cheating Scale (SFCS) and Demographic profile were used to measure fans' willingness to consider using illegal or violent actions to give their team an unfair advantage. Reliability estimates for SFQ and SSIS scale were 0.96. Reliability for SFCS scale was 0.95, and construct and criterion related validity for all scales are established. Data collection procedures were clearly described, but the study did not report IRB or other ethical approval.

Findings supported the hypothesis of the positive relationship between team identification and fans' willingness to consider cheating, using correlation analysis ($p < 0.001$). Wann et al.'s (2001) interpretation of these findings is consistent with Russell and Baenninger (1996) that many people were willing to admit the possibility to commit illegal acts under the cover and protection of anonymity. This led to the conclusion that fans with high team identification will have a high willingness to consider using illegal ways to assist their teams. Wann, Hunter, Ryan, and Wright (2001) reported several limitations. First, the sampling population might be too small to represent the whole population and it was a convenience sample. Second, the research focused on fans with high identification that were willing to assist the team by illegal acts, not on general sports fans that do not have high team identification. They suggested exploring the relationship between team identification and willingness of general sports fans to consider illegally assisting the team.

Brand Loyalty

In 1950, researchers began to research the concept of brand loyalty (Lim & Razzaque, 1997). Early research defined brand loyalty as "a special case of programmed decision making when customers adopt a decision strategy of giving all or most of their patronage to a particular brand" (Runyon, 1980, p. 92). The most notable conceptual identification of brand loyalty was presented by Jacoby and Kyner (1973). They describe customer brand loyalty as "the behavioral outcome of a customer's preference for a particular brand from a selection of similar brands, over a period of time, importantly is the result of an evaluative decision-making process" (Jacoby, & Kyner, 1973, p. 5).

Oliver described brand loyalty as “a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same brand set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior” (1999, p. 34). According to Oliver’s definition, there are two aspects of brand loyalty: behavioral and attitudinal. Dick and Basu (1994) developed a conceptual model of attitudinal and behavioral loyalty. They proposed that a customer may buy a specific brand because of the low price. However, a slight price increase may cause them to buy another brand. However, purchasing behavior alone may not be sufficient to explain brand loyalty. Researcher reported, “For this reason-marketing scholars argue that the customers might be considered loyal only if the consumer’s attitude towards a brand is more favorable than for the competing brands” (Datta, 2003, p. 139).

Theory of Reasoned Action

In 1967, Ajzen and Fishbein introduced their seminal theory of reasoned action (as cited in Rawdall, 1989). The theory of reasoned action uses attitudinal, social influence, and intention variables to predict behavior. The theory asserts that intention to perform behavior is determined by the individual’s attitude toward the behavior and his or her subjective norms. This theory identifies one major construct about a person’s behavior and was determined by the information available to the person. The behavioral intentions of people are a function of attitude toward the behavior and subjective norms (Rawdall, 1989). In the last 40 years, the theory has been revised for marketing and brand management by many researchers, such as Gounaris and Stathakopoulos (2004) and Liu, Marchewka and Ku (2004). An Empirical study by Dick and Basu (1994) led

more refinements of the theory. Gounaris and Stathakopoulos (2003) developed a brand model depicting the relationships among Fishbein and Ajzen's (1967) concepts that is still in use. This theory addresses critical issues about customer brand loyalty for marketing, and is useful in explaining and predicting behavioral and attitudinal customer loyalty. Thus it is a useful guide to customer brand loyalty. The theory balances simplicity and complexity, contributing to its usefulness. A study by Dick and Basu (1994) verify the propositions of a positive relationship between customer purchasing behaviors and brand loyalty. The theory has been adapted for education, management, health, social science and marketing research. This is the primary theory used to examine brand loyalty with well-developed propositions and strong empirical support.

Conceptual Framework of Customer Loyalty

Researchers introduced their conceptual framework of customer loyalty based on theory of reasoned action and integrated concepts of brand loyalty (Dick & Basu, 1994). This framework identifies five antecedents of customer loyalty: (1) cognitive (accessibility, confidence, centrality, clarity), (2) affective (emotion, feeling states/mood, primary affect, satisfaction), (3) conative (switching cost, sunk cost, expectation), (4) social norms, and (5) situational (Dick & Basu, 1994). The moderators of the relationship are relative attitude and repeat patronage, and the consequence is customer loyalty. "A number of relationships involving antecedents, moderators, and consequences of loyalty may be derived from the customer loyalty framework" (Dick & Basu, 1994, p. 110) led to several propositions. Brand loyalty is a two dimensional construct involving relative attitude and repeat patronage/purchasing behavior (Dick & Basu, 1994). In the last ten years, the loyalty framework has been revised and adapted to

brand management and marketing research. Empirical studies by Lim and Razzaque (1997), Datta (2003), and Gounaris and Stathakopoulos (2004), led to refinements to the conceptual framework. Gounaris and Stathakopoulos (2004) adapted a conceptual model from the conceptual framework and depicted direct and indirect relationships among the concepts described by Dick and Basu (1994). The conceptual framework is significant because it provides a comprehensive construct of brand loyalty, addresses essential issues about brand loyalty in marketing, and is useful in explaining and predicting the factors influencing brand loyalty. Thus it is a useful guide to empirical research. The conceptual framework has a good balance between simplicity and complexity, contributing to its usefulness. A study by Garland and Gendall (2004) verifies the propositions of a two dimensional construct of brand loyalty involving relative attitude and repeat patronage. The conceptual framework has been adapted to various research fields, such as management, brand management, marketing. This is the predominant conceptual framework used to examine brand loyalty with well-developed propositions and strong empirical support.

Customer loyalty is the strength of the relationship between an individual's relative attitude to brands and repeat patronage. The relationship is mediated by social norms and situational factors. Cognitive, affective, and conative antecedents of relative attitude are identified as contributing to loyalty, along with motivational, perceptual, and behavioral consequences. Based on the framework, Dick and Basu (1994) indicated that the task of managing loyalty would involve:

1. Determining the loyalty status of a target population in terms of strength of the relationship and comparing it with competing offerings.

2. Identifying relevant antecedents and consequences in a given market context.
3. Determining the relative impact (or contributions) of antecedent factors and the likelihood of different consequences.
4. Identifying causal variables on which the target is underperforming compared to competitors, from which strategic interventions might increase loyalty.

Measurement of Customer Loyalty

Multi-phase model of customer loyalty. McMullan and Gilmore (2003) examined of customer loyalty measurement. They used a non-experimental, methodological design of 438 customers from a university training restaurant. McMullan and Gilmore's (2004) literature review was thorough and current in comparing and contrasting concepts about the four phases of developing customer loyalty (cognitive, affective, conative, and action). Theoretical analysis and empirical studies of brand loyalty were reviewed, leading to identification of a gap about the way to measure brand loyalty. This resulted in McMullan and Gilmore's measure of the four phases of brand loyalty that was developed by Oliver (1999).

McMullan and Gilmore (2004) discussed measurement scales of brand loyalty, such as Raju's Exploratory Tendencies in Consumer Behavior Scales (ETCBS); Parasutaman's service quality scale (the SERVQUAL) and Oliver's Satisfaction Measurement Scale; Beatty's Involved Commitment Scale. These scales included items that reflected ego involvement, purchase involvement and brand commitment and

represented dimensions of loyalty. McMullan and Gilmore (2004) developed the loyalty scale by generating these validated and reliable scales.

A probability, simple random sampling plan resulted in the data-producing sample of 210, a response rate of 47.9%. The 28 items of customer loyalty scale were used to measure the four phases of customer loyalty. Reliability estimates exceeded 0.8 for each component. Data collection procedures were clearly described, but the study did not report IRB or other ethical approval.

The scale validity was tested using principal component analysis (PCA). PCA is based on correlation coefficients and generates a number of components. PCA is a statistical tool to examine relationships in the data. The test is applied when the average communality is equal to or greater than 0.70. After using PCA, the average communality was 0.75 and the validity of the measurement scale was accepted. Findings supported the hypothesis that there are four distinct phases in the development of a customer's loyalty towards a product or service (cognitive, affective, conative and action). These have strong reliability and validity (Cronbach's $\alpha > 0.8$, PCA= 0.75). McMullan and Gilmore's (2004) interpretation is that the new scale can accurately measure the development of loyalty.

This led to the following conclusions. First, once the scale is complete, it can be applied to identify individual levels of loyalty. Second, these data were produced from the new instrument and can be applied to strategies for specific levels of brand loyalty. Third, it may be combined with market research and build profiles in relation to frequency and length of usage. Fourth, the scale may also be used to track customer loyalty over time. Strengths of the study are that the scale is valid and reliable. They

generated areas of future study because the research is a pilot test of the validity and reliability for the measurement scale. The next stage should apply the scale to a large population and different service sectors to allow further testing of the scale and to develop a scoring system that identifies different levels of customer loyalty.

Brand Loyalty: Empirical Studies

Gounaris and Stathakopoulos (2004) examined the antecedents and consequences of brand loyalty. They used a non-experimental, correlational survey research design, and confirmatory factor analysis to test a model about antecedents' factors influencing brand loyalty and four types of brand loyalty. The sample included 850 shopping mall consumers in Greece. Empirical studies of antecedents (risk aversion, variety seeking, brand reputation, availability of substitute, brands, social group influences, and peer's recommendation) and four types of brand loyalty (buy nothing, buy alternative brand, word-of-mouth communication, and visit another store) were examined, leading to the lack of literature about the need to understand relationships among concepts of brand loyalty. This resulted in Gounaris and Stathakopoulos' study testing the propositions of reasoned action theory and the loyalty framework developed by Dick and Basu (1994), using the Loyalty Scale developed by the researchers.

A probability, simple random sampling plan resulted in the data producing sample of Greek customers 850; the response rate was not reported. Data collection procedures were clearly described. Confirmatory factor analysis (CFA) was used to test a model examining the relationships among the variables of consumer drivers (risk aversion and variety seeking), brand drivers (brand reputation and availability of substitute brand) and social drivers (social group influences and peers' recommendation).

Findings supported that (1) risk aversion will relate to the type of brand loyalty the individual develops towards a specific brand ($\beta = -0.17, p < 0.01$) and a significant relationship is also identified between risk aversion and no loyalty ($\beta = 0.13, p < 0.01$); (2) variety seeking is negatively related to premium loyalty ($\beta = -0.17, p = 0.05$) and to a significant, positive relationship with no loyalty ($\beta = 0.13, p = 0.05$); (3) brand reputation is positively related to both premium ($\beta = 0.86, p = 0.01$) and covetous loyalty ($\beta = 0.61, p = 0.01$), and a negative relationship is identified between brand reputation and no loyalty ($\beta = -0.15, p = 0.05$); (4) brand substitution is significantly positive related to inertia loyalty ($\beta = 0.56, p = 0.01$), a positive relationship with no loyalty ($\beta = 0.17, p = 0.01$), and a negative relationship with covetous loyalty ($\beta = -0.12, p = 0.05$); and there are no statistically significant relationship between brand substitution and premium loyalty. (5) both premium ($\beta = 0.63, p < 0.01$) and covetous loyalty ($\beta = 0.79, p < 0.01$) are significantly and positively related to social influences and a significant negative relationship was between social influences and inertia loyalty ($\beta = -0.73, p = 0.01$), but there are no statistically significant to no loyalty; (6) both premium ($\beta = 0.37, p < 0.01$) and covetous loyalty ($\beta = 0.24, p < 0.01$) are significantly positive related to peers' recommendation but not there are no statistically significant to inertia loyalty; (7) premium loyalty ($\beta = 0.24, p < 0.001$) and covetous loyalty ($\beta = 0.32, p < 0.001$) are significantly positive related with word-of-mouth communication and a significantly negative relationship is between inertia loyalty and word-of-mouth communication ($\beta = -0.38, p = 0.001$). (8) going to a different store is significantly and positively related to premium loyalty ($\beta = 0.19, p = 0.01$) and it is negatively related to inertia loyalty ($\beta = -0.16, p < 0.05$); (9) there is a significantly negative relationship between purchasing an

alternative brand and premium loyalty ($\beta = -0.21, p < 0.01$). However, purchasing an alternative brand is positively related to inertia loyalty ($\beta = 0.12, p < 0.05$); (10) there is a significantly negative relationship between inertia loyalty and buying nothing ($\beta = -0.17, p < 0.05$), but buying nothing is positively related to premium loyalty ($\beta = 0.31, p < 0.001$).

Gounaris and Stathakopoulos' (2004) use these findings to argue that traditional theories consider loyalty as either attitudinal or behavioral. However, there should be consideration of the social influences when behavioral consequences of loyalty do not involve purchasing behavior. Furthermore, the study noted the relationship between purchasing behavior and brand loyalty and the relationship among different levels of brand loyalty and the customer's behavior. This led to three conclusions. Establishing an emotional attachment can facilitate customer retention and achieve premium loyalty. Premium loyal customers generate positive word-of-mouth communication. When these customers do not find their preferred brand, they either buy nothing or visit another store in search of it.

There are three practical implications to customer brand loyalty. First, when fostering premium loyalty, managers should build their brands' name, equity and brand image. Second, for covetous loyal customers, managers should establish a desirable image and promote the brand. Third, for inertia loyal customers, managers should differentiate their brand from its rivals.

Gounaris and Stathakopoulos (2004) report four limitations to their study. The first limitation is country-specific. Consumer behavior is influenced by cultural factors. Therefore, findings are limited to the Greek population. A second limitation of the study

concerns the antecedents of the various types of loyalty. Some antecedent factors might have been excluded from this research and the researchers could not present the factors that influenced these antecedent factors. A third limitation is that some items of the Loyalty Scales used to measure the antecedents and the consequences of loyalty have weak psychometric properties, and additional items could be added. A fourth limitation is that the researchers do not know if the customers purchased the brand while visiting an alternative store, and do not know whether the customers share word-of-mouth with others. Each of these limitations can be addressed in future studies. The researchers also recommended that future studies investigate other behavioral consequences, such as cross-purchasing or consumers' tolerance of price change before they decide to abandon their regular brand.

Lim and Razzaque (1997) examined brand loyalty and its situational effects. They used a non-experimental, causal comparative, quantitative design of 160 undergraduate students from the National University of Singapore. Lim and Razzaque's (1997) literature review was thorough and current in comparing and contrasting concepts about two dimensional brand loyalty. Theoretical and empirical studies of behavioral and attitudinal brand loyalty were reviewed, leading to the major gap in the literature that not only do customer attitudes influence behavior, but brand attitudes may be tied to situational contexts.

A non-probability, convenient sampling plan resulted in the data-producing sample of 160 but the response rate was not reported. The researcher used a three-step procedure to conduct the experiment. First, focus group interviews were conducted to generate a list of situations that were likely to result in consumption or purchases for each

product. Second, three situations were selected, using a pre-experimentation survey with a seven-point Likert scale. After determining these situations, researchers used cluster analysis to ensure that the situations are not correlated. Third, a composite scale (multi-attribute attitudinal measures, semantic differential, global attitudinal measure and attitudinal confidence measure) was used to measure the strength of attitudes toward two products (greeting cards and computer diskettes) after classifying the subjects into two groups (high and low relative brand attitude). Reliability and validity of the composite scale were not reported in this study. Data collection procedures were clearly described.

Findings supported that there is a significant difference between repeat purchase rates across groups and relative brand attitude ($p < .001$ for greeting cards; $p < .001$ for computer diskettes), and there are significant interaction effects between attitude and situation on repeat purchase rates ($p < .05$). Using two-way factorial analysis of variance (ANOVA). However, did not support that there is a significant difference in repeat purchase rates across situations ($p > .01$ for greeting cards; $p > .01$ for computer diskettes). Lim and Razzaque's (1997) interpretation is that although situational influences may not directly impact purchasing behavior, it seems to be a moderating variable that influences customers' relative attitude toward purchasing behavior. This led to the conclusion that the attitude-within-situation is a better predictor of repeat purchasing behavior when attitude-situation interaction effects are significant.

Two limitations were reported by Lim and Razzaque (1997). First, the research study only involved two unrelated products, and therefore, lacks generalization. Second, the manipulation of the situational treatment is confined to the use of descriptors presented in survey questionnaires. They generated areas of future study to cover wider

product categories and more psychometrically accurate research instruments in follow-up studies.

In summary, the internal validity strengths of Lim and Razzaque (1997) are that their study addressed a significant concept of attitudinal and behavioral brand loyalty that was validated in the literature, and related the study to a proposition by Dick and Busu (1994), which generated the related hypothesis. Significant threats to internal validity are that Lim and Razzaque (1997) did not report the reliability and validity of the composite scale. Future studies should provide the reliability and validity of their measurement scale and should cover wider product categories.

Brand Association Factors Influencing Fans' Brand Loyalty: Empirical Studies

Bauer, Sauer, and Schmitt (2004) explored customer-based brand equity in the German team sport industry. They used a non-experimental, multivariate analysis, quantitative design, of 1856 respondents who were selected from one of Germany's most popular sport websites – "*Sport1.de*." Bauer and Sauer, and Schmitt's literature review was thorough, current in comparing and contrasting theories about customer-based brand equity. Theoretical studies of conceptualizing, measuring, and managing customer-based brand equity and empirical study of the relationship between brand associations and brand loyalty in the sport setting were reviewed. It found no empirical evidence that the dimension of brand awareness has been tested in the sport industry and there was no empirical evidence of research on a team association model in the German team sports industry. Bauer, Sauer, and Schmitt's study therefore tested the customer-based brand equity theory in German team sports, using Keller's (1993) conceptual framework and

Gladden and Funk's (2002) team association model with both brand awareness and brand image dimensions.

Online sampling was used to collect data. A total of 3,392 users accessed the questionnaire and 1,856 usable surveys were returned, a response rate of 54.7%. A self-developed brand awareness scale and a modified Team Association Questionnaire developed by Gladden and Funk (2001) were used to measure four constructs of customer-based brand equity: brand awareness, product-related brand attributes, non-product-related brand attributes, and brand benefits that consisted of 14 indicators: recall of name, brand recognition, athletic success, star player, coach, management, logo, stadium, stadium atmosphere, regional importance, fan identification, interest of family and friends, nostalgia, and escape. Reliability estimates using coefficient alpha values ranged from .81 (product-related brand attributes) to .86 (brand benefits) for the three constructs and well above the standard of .70. Factor loadings using exploratory factor analysis ranged from an average of .71 (logo) to .88 (fan identification) for the 14 indicators and construct validity for the scale was established.

Data collection procedures were clearly described, but the study failed to report IRB or other ethical approval. Findings show that the brand awareness seems to be of minor relevance in a team sport setting. However, the researchers reported satisfactory results of the brand image factors. First, "respondents do not view regional affiliation as a benefit derived from the consumption of team sports but as an attribute of sport teams" (Bauer, Sauer, & Schmitt, 2005, p. 9). Second, the indicator of "tradition" is highly correlated with the indicator of "nostalgia". This led to the following conclusions. First, the brand awareness dimension is not to be valid in German sport industry. In contrast,

the brand image dimension is a significant component of brand equity in German sport industry. Second, there are positive relationships between brand equity and purchase intention, price premiums and brand loyalty. Third, for professional sport teams, the brand is an essential success factor, and consistent with Gladden and Milne's (1999) findings. Bauer, Sauer, and Schmitt claimed that "since brand equity equals brand image in German team sport, brand management has to focus on developing strong, favorable and unique associations in the heads of their customers" (Bauer, Sauer, & Schmitt, 2004, p. 11).

Bristow and Sebastian (2001) investigated the brand loyalty factors among Chicago Cubs baseball fans. They used a non-experimental, exploratory study of 371 respondents from patrons at a restaurant located across the street from Wrigley Field. Bristow and Sebastian's literature review was thorough and current in comparing the conceptual framework about two dimensions of customer brand loyalty. Empirical studies about brand loyalty factors among Chicago Cubs fans were examined, leading to the lack of empirical evidence that shows these three factors (perceived brand-performance fit, social and emotional identification and habit and long history) have a significant influence on the fans' brand loyalty to professional sports. This resulted in Bristow and Sebastian's study testing the tripartite model of consumer brand loyalty that was adopted from the conceptual framework of Dick and Basu (1994); Sheth, Mittal, and Newman (1999).

A non-probability sampling plan resulted in the self-selected, data-producing sample of 374. The Product Expertise Scale, developed by Mishra et al. (1993), was used to measure perceived-performance fit; the Desire to Win/Competitiveness Scale

developed by Confman (1991), was used to measure social identification variable; the Loyalty Proneness Scale, developed by Lichtenstein et al. (1990) was used to measure emotional identification variable; and the Measure of Nostalgia, developed by Holbrook (1993) was used to measure habit and long history variables. Reliability and validity were not reported in this study.

Data collection procedures were clearly described. Data were collected during three different home game serves of the Cubs. The first data were collected at the end of May, 2001 before games against the St. Louis Cardinals and San Diego Padres. The second set of data was collected in July when Cubs played the Kansas City Royals. The third data were collected in August when Cubs played the New York Mets. The data were collected from a restaurant located across the street from Wrigley Field. But the study did not report IRB or other ethical approval. Findings supported the hypotheses of: (1) greater numbers of die-hard Cubs fans report having watched/listened to Cubs game during their childhood than will less loyal Cubs fans ($p < .05$); (2) die-hard Cubs fans will attend Chicago Cubs baseball games more frequently than will less loyal Cubs fans ($p < .05$); (3) die-hard Cubs fans will be more likely to purchase Chicago Cubs paraphernalia than will less loyal Cubs fans ($p < .05$); (4) die-hard Cubs fans will score higher on a measure of brand loyalty than will less loyal Cubs fans ($p < .05$); (5) die-hard Cubs fans will score higher on a measure of baseball knowledge/expertise than will less loyal Cubs fans, ($p < .05$); (6) compared to less loyal fans, die-hard Cubs (loyal) fans will be more likely to remain fans if Wrigley field were to be replaced with a new ballpark ($p < .05$). Not supported were hypotheses that: (1) die-hard Cubs (loyal) fans will consider the Chicago Cubs team members to be more likeable than will less loyal Cubs

fans ($p > .05$); (2) die-hard Cubs (loyal) fans will score higher on a measure of nostalgia than will less loyal fans ($p > .05$); and (3) die-hard Cubs fans will score lower on a measure of competitiveness than will less loyal fans ($p > .05$). Bristow and Sebastian's findings are that the die-hard Cub fans were generally more loyal, and more likely to purchase Cubs paraphernalia than were less loyal fans. This led to the conclusions that even for professional sports teams with a history of losing, there is hope. "A club with a storied history of classy players and almost legendary fan disappointments, it is possible for teams far removed from a world championship to enjoy strong fan support and loyalty" (Bristow, & Sebastian, 2001, p. 256). Implications for practice are that brand loyalty of baseball fans can be applied to other professional sports. Limitations reported by Bristow and Sebastian are that the sample might not be representative of all Chicago Cubs fans or of the population of the greater Chicago area. Future studies should expand the sample size and focus on other professional sports.

Factors influencing sports fans' attitudinal and behavioral performance have been explored for decades. Tajfel and Turner's (1979) social identity theory has been used to explain an individual's group identity. The theory states that upon joining a group, an individual will think of that group as superior to any other. Applying the theory to sports fans' team identity, it is reasonable to assume that fans incorporate both public and private fandom from interpersonal/network level when creating and maintaining a fan identity. The significance of the theoretical literature is that social identity theory can explain fans' perceptions and self-categorizations based on their social identities (passive aspects). Undoubtedly, from psychological dimension to explore and explain fans' attitudinal and behavioral performance is a correct direction. However, other researchers

claimed that there should be a comprehensive study of the topic (Gladden, & Funk, 2001; Bauer, Sauer, & Schmitt, 2005). Keller's (1993) customer-based brand equity explains customers' brand knowledge of the specific brands. When this theory is applied to a sport setting, it can explain fans' attitude toward their teams. Based on this theory, three types of brand association (attribute, benefit, and attitude) can be used to explore factors influencing fans' attitudinal and behavioral performance. Psychological aspects were initially discussed in terms of social identity to explain fans' attitude associated with the supported teams, attribute association can be used to explain psychological feature triggers fans' attitude associated with the supported teams, such as team logo, stadium facility, star player, and winning records, and further exhibit behavioral performance. In addition, fans' cognitive and subjective beliefs would also influence fans' attitudinal associations, such as personal sport knowledge and meaningful importance of a team to fans (Gladden & Milne, 1999; Funk, Haugtvedt, & Howard, 2000; Gladden & Funk, 2001; Gladden & Funk, 2002; Funk & James, 2004).

There are many empirical studies of the factors influencing fans' identification (Bristow, & Swbastian, 2001; Cialdini, & Borden, 1976; Dietz-Uhler, & Murrell, 1999; Fisher, & Wakefield, 1998; Mael, & Ashforth, 1992; Richardson, 2004; Sutton, McDonald, Milne, & Cimperman, 1997; Wann, Royalty, & Roberts, 2000). These could be (1) factors influencing customer brand loyalty, (2) two dimensional brand loyalty (attitude and behavior), and (3) factors influencing fans' brand loyalty cited in this view were replicated, they also had some problems or limitations such as small sample size, not enough antecedent variables, and failure to report their reliability and validity, and no IRB. The strengths of these studies are that they identified and measured the importance

of: (1) sports fans' involvement, and customer brand loyalty; (2) factors influencing fans' identification; (3) factors influencing customer brand loyalty; and (4) factors influencing sports fans' brand loyalty.

In the methodological study of sports fans and brand loyalty, Shank and Beasley (1998) developed the Sports Involvement Inventory. After the pilot test, the instrument had good reliability and validity, but its applicability to other sports has yet to be examined. Funk, Ridinger, and Moorman (2004) developed the Team Sports Involvement. After the pilot test, the instrument had good reliability and validity, but it needs to include other significant antecedents. In addition, the scale should measure different types of sports. Capella (2001) developed the Fan Behavior Questionnaire. The instrument had internal consistency, but some items should be revised and reworded. Gladden and Funk (2001) developed the Team Association Questionnaire to measure fans' brand association and brand loyalty. After the pilot test, the instrument had good reliability and validity, but it needs to be empirically tested to other sport settings. McMullan and Gilmore (2003) used existing validated and reliable scales to measure brand loyalty. After pilot testing, the newly-developed scale had high reliability and validity, but the scale should be applied to a large population and different service sectors to allow further testing of the scale and to identify different levels of customer loyalty. Furthermore, most empirical studies show that the sample might be too small to be representative (Wann, Hunter, Ryan, & Wright, 2001; Bristow, & Sebastian, 2001; Gounaris, & Stathakopoulos, 2004). Some empirical studies show that antecedent variables should be expanded to explain fans' identification, association and brand

loyalty sufficiently (Lim, & Razzaque, 1997; Gladden, & Funk, 2001; Gwinner, & Swanson, 2003; Gounaris, & Stathakopoulos, 2004).

Expanding the theoretical formulations proposed by Tajfel and Turner's (1979) social identity theory is an area of potential future scholarly inquiry. There is a need to develop theoretical formulations of individual group identity to better understand sports fans' self role-identity and group identity. Combining self role-identity and group identity may better explain fans' identification. In addition, future research should bring other aspects of social psychology into sports and fandom studies to reinforce the theory to explain sports fans' behavior.

Expanding the theoretical formulations of theory of reasoned action is an area of future scholarly inquiry. There is a need to add other variables, such as volitional control and situational effects, to explain customer purchasing behavior and brand loyalty sufficiently.

Empirical studies are needed in the fans' brand loyalty area. There are few empirical studies of fans' brand loyalty (Bristow, & Sebastian, 2001; Gladden, & Funk, 2001; Gladden, & Funk, 2002). Empirical studies need to support theoretical literature about factors that influence fans attitude and behavior and brand loyalty. Research should focus on more association factors of fans to explore whether fans will become brand loyal. Explorative, factor analysis, correlational design, multiple regression, or structural equation model (SEM) is needed to examine the factors influencing brand loyalty of sports fans. In addition, empirical tests in different sports field or a comparison of two different teams' attributes have not been examined. It needs further examination as well.

Methodological study is another area of future scholarly inquiry in which design, sample size, population studied, and measurement of variables are needed. Many methodological studies have very small sample sizes. The sample size should be large enough to mitigate external validity concerns. To measure fans' brand loyalty, research should seek a comprehensive way to explore more antecedent factors that may influence fans' brand loyalty.

Theoretical Framework for the Study

Based on the critical review of literature, when forming an attachment to a specific brand, customers will exhibit brand loyalty (Dick, & Basu, 1994). Thus, this study integrates Keller's (1993) and Dick and Basu's (1994) three types of brand association and conceptual framework of brand loyalty to explain the factors in fans' brand loyalty.

In addition, empirical studies showed that no study has compared a winning team to a losing team in Major League Baseball (Bristow & Sebastian, 2001; Funk, et al., 2004; Gladden & Funk, 2001; Gladden & Funk, 2002; Gladden & Milne, 1999; Tapp, 2003; Wann, 1995). The relationships among these variables are shown in Figure 1.

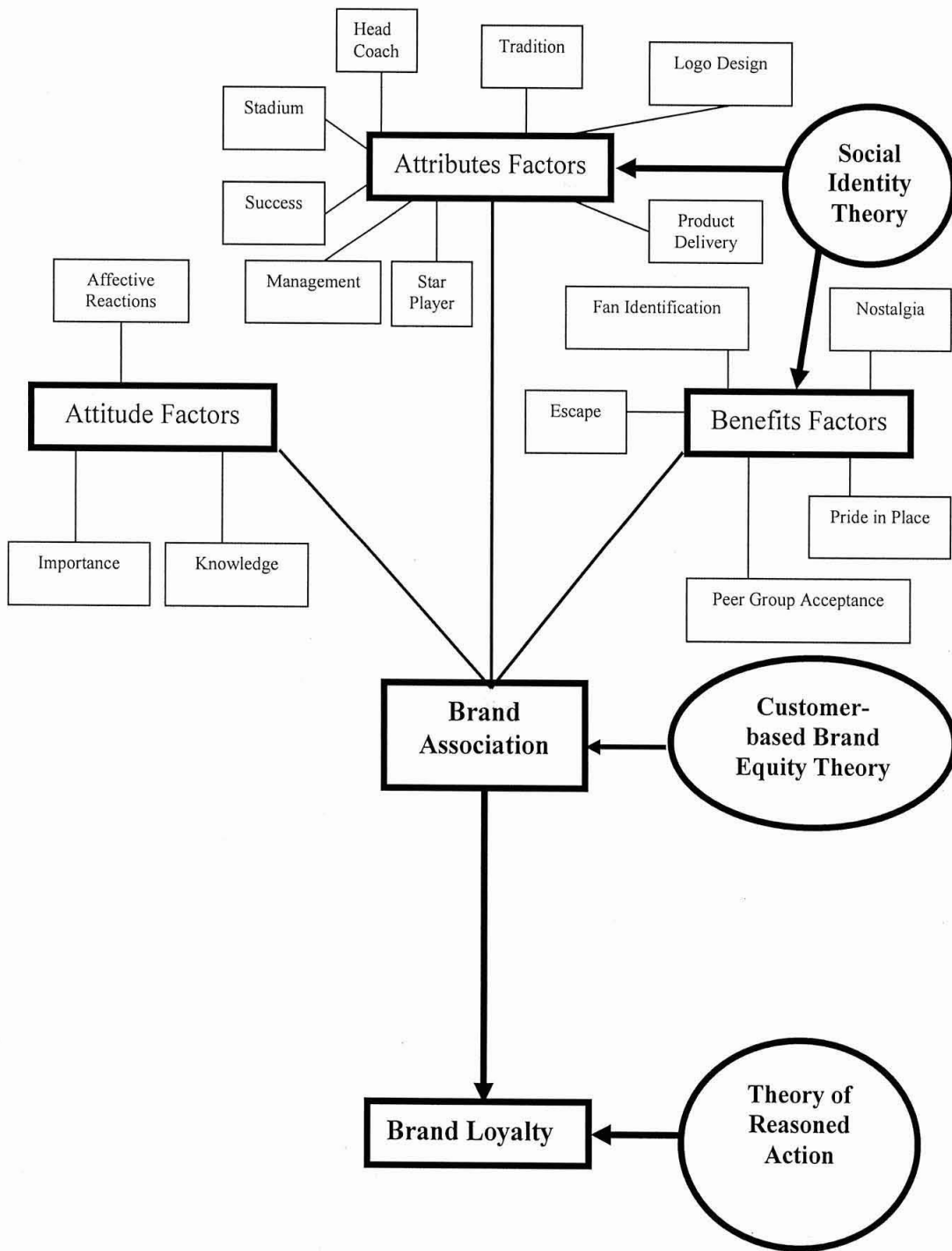
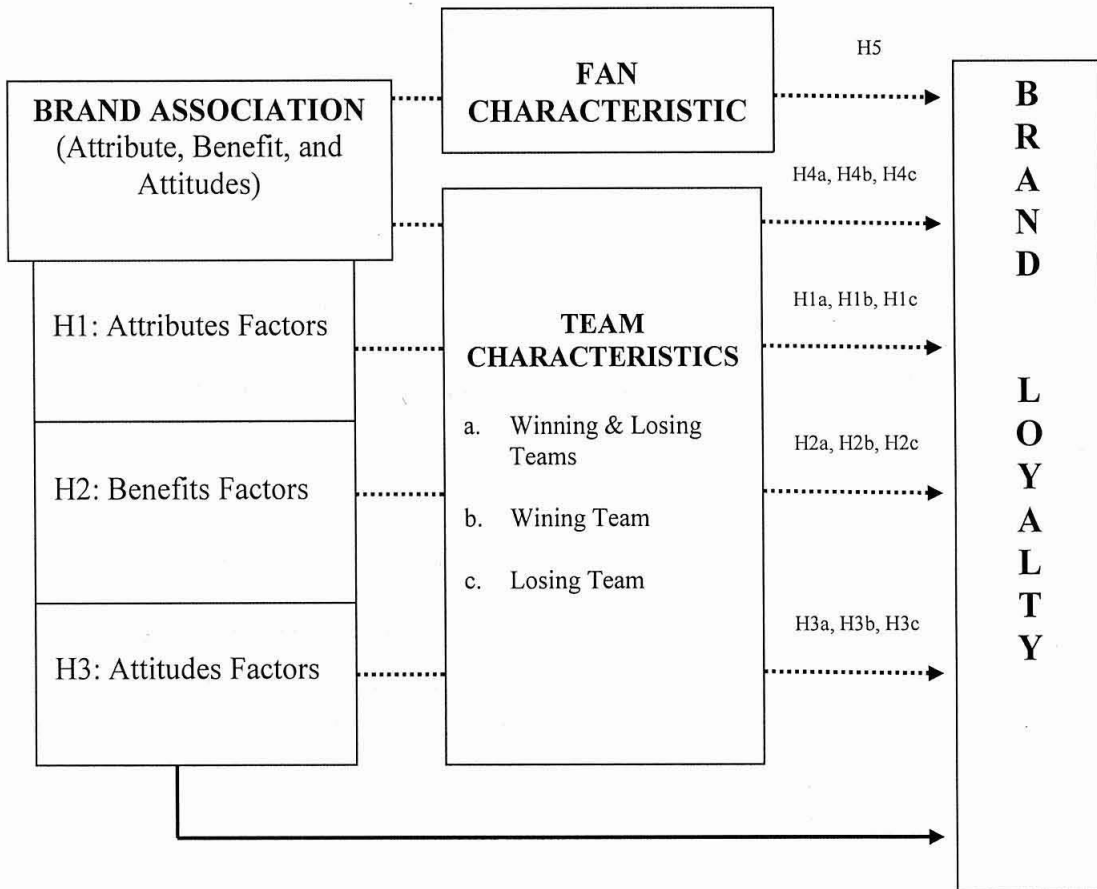


Figure 1. Relationships between fans' brand association and brand loyalty based on Gladden and Funk's (2002) Team Association Model.



———— Hypothesized relationship in the literature
 Hypothesized relationships being tested

Figure 2. Hypothesized research model.

Research Questions

1. What are the fans' characteristics, attribute factors (success, star player, head coach, management, logo design, stadium, product delivery, tradition), benefit factors (escape, fan identification, peer group acceptance, pride in place), attitude factors (importance, knowledge, effect) and fans' brand loyalty to the Florida Marlins and Tampa Bay Devil Rays?
2. Are there differences in fans' characteristics, brand association (attribute, benefit, and attitude factors), and brand loyalty of fans of winning and losing baseball teams (Florida Marlins and Tampa Bay Devil Rays)?

Research Hypotheses

Hypothesis 1: Brand association attribute factors are significant explanatory variables of brand loyalty to major league baseball fans.

Hypothesis 1a: Brand association attribute factors are significant explanatory variables of brand loyalty to winning and losing team baseball fans.

Hypothesis 1b: Brand association attribute factors are significant explanatory variables of brand loyalty to winning team baseball fans.

Hypothesis 1c: Brand association attribute factors are significant explanatory variables of brand loyalty to losing team baseball fans.

Hypothesis 2: Brand association benefit factors are significant explanatory variables of brand loyalty to major league baseball fans.

Hypothesis 2a: Brand association benefit factors are significant explanatory variables of brand loyalty to winning and losing team baseball fans.

Hypothesis 2b: Brand association benefit factors are significant explanatory variables of brand loyalty to winning team baseball fans.

Hypothesis 2c: Brand association benefit factors are significant explanatory variables of brand loyalty to losing team baseball fans.

Hypothesis 3: Brand association attitude factors are significant explanatory variables of brand loyalty to major league baseball fans.

Hypothesis 3a: Brand association attitude factors are significant explanatory variables of brand loyalty to fans of winning and losing baseball teams.

Hypothesis 3b: Brand association attitude factors are significant explanatory variables of brand loyalty to fans of winning baseball teams.

Hypothesis 3c: Brand association attitude factors are significant explanatory variables of brand loyalty to fans of losing baseball teams.

Hypothesis 4: Brand association attribute, benefit, and attitude factors are significant explanatory variables of brand loyalty to major league baseball fans.

Hypothesis 4a: Brand association attribute, benefit, and attitude factors are significant explanatory variables of brand loyalty to fans of winning and losing baseball teams.

Hypothesis 4b: Brand association attribute, benefit, and attitude factors are significant explanatory variables of brand loyalty to fans of winning baseball teams.

Hypothesis 4c: Brand association attribute, benefit, and attitude factors are significant explanatory variables of brand loyalty to fans of losing baseball teams.

Hypothesis 5: brand association attribute, benefit and attitude factors and fan characteristics are significant explanatory variables of brand loyalty to Major League Baseball fans.

CHAPTER III

METHODOLOGY

Chapter III presented the methodology that was used to test the hypotheses and answer the research questions. Fans' characteristics, brand association factors, and brand loyalty to the winning and losing Major League Baseball teams were investigated in this chapter. This chapter consists of six sections: research design, population and sampling, instrumentation, procedures, data analysis, and evaluation of research methods. For the research design, a research method, independent variables and dependent variable were discussed. For the population and sampling, target population and accessible population were identified and sampling plan was set. For the instrumentation, questionnaire used in this study was described and reliability and validity were reported. For the procedures, data collection process, ethical consideration, and evaluation of ethical aspects were described. For the data analysis, statistical procedures of descriptive analysis, Exploratory Factor Analysis, Chi-Square, Independent Samples t-test, and Multiple Linear Regression were discussed. Finally, the research method was evaluated.

Research Design

A quantitative, non-experimental, and casual comparative survey research design was used to examine the relationship between fans' brand associations (attribute, benefit, and attitude factors) and brand loyalty to two major league baseball teams (Tampa Bay Devil Rays and Florida Marlins). The research design was a causal comparative and explanatory study. A survey questionnaire was used by quota and convenience sampling outside of two baseball stadiums to collect data for this study's independent variables of attribute factors (success, star player, head coach, management, logo design, stadium,

product delivery, tradition), benefit factors (escape, fan identification, peer group acceptance, pride in place), and attitude factors (importance, knowledge, and affective reflections), and dependent variable of fans' brand loyalty. Team Association Questionnaire (Gladden, & Funk, 2002) survey instrument was utilized for this study.

Population and Sampling Plan

Target Population

In this study, the target population included all Tampa Bay Devil Rays and Florida Marlins' fans. The population of the United States is about 293 million people (Answers Corporation, 2006). ESPN Mediakit reported that about 60% of Americans (175,800,000) are Major League Baseball (MLB) fans (ESPN, 2004). There are 30 teams in Major League Baseball. Therefore, the average number of fans per MLB team is 5,860,000.

The total attendance for the 2005 MLB season was 74,915,268 fans (MLB, 2005). With 30 MLB teams, the estimated average attendance per MLB team 2,497,176. However, the average attendance for the Marlins in 2004 was 1,723,105 (Baseball Almanac, 2004), or 69% of the estimate. Furthermore, the average attendance for the Devil Rays is 1,275,011 fans (Baseball Almanac, 2004), or 51% of the estimated attendance.

To estimate the number of fans for the Marlins and Devil Rays, the figures of 69% and 51% respectively, resulting from a comparison of actual to estimated fan attendance is applied to estimate the number of fans. For the Marlins, 69% of the estimated 5,860,000 fans resulted in a fan base of 4,043,400. For the Devil Rays, 51% of the 5,860,000 fans resulted in a fan base of 2,988,600.

Accessible Population and Setting

In this study, accessible population was the fans who will attend Florida Marlins and Tampa Bay Devils' games during available data collection period (August 15th to September 15th) during the 2006 MLB regular season. The 2005 average attendance for Marlins was 22,872 in each game (Baseball-reference, 2005). According to MLB 2006 regular season schedule, there were 16 home games in the Marlins' ballpark (Dolphin Stadium) during available data collection period. Thus, the estimated accessible population for Marlins was 365,952 fans. The 2005 average attendance for Devil Rays was 14,095 in each game (Baseball-reference, 2005). According to MLB 2006 regular season schedule, there were 16 home games in the Devil Rays' ballpark (Tropicana Field) during September, 2006. Thus, the estimated accessible population for the Devil Rays was 225520 fans during available data collection period.

Quota and Convenience Sampling Plan and Setting

Both quota and convenience sampling plan were conducted in this study. In convenience sampling, "the researcher cannot say with confidence that the individuals are representative of the population" (Creswell, 2005, p. 149). However, there are substantial amount of fans for Marlins and Devil Rays in the United States. Thus, choosing these two stadiums to access fans (convenience sample) was considered as a proper way to represent the population in this study.

For Marlins, the location for data collection was on the sidewalk of NW 199 ST. which is a public area. Marlins' fans park their vehicle in a separate parking lot away from the Dolphin Stadium. Therefore, fans had to walk a distance to get to the pedestrian main gate to enter the stadium. The illustration is presented as follows:

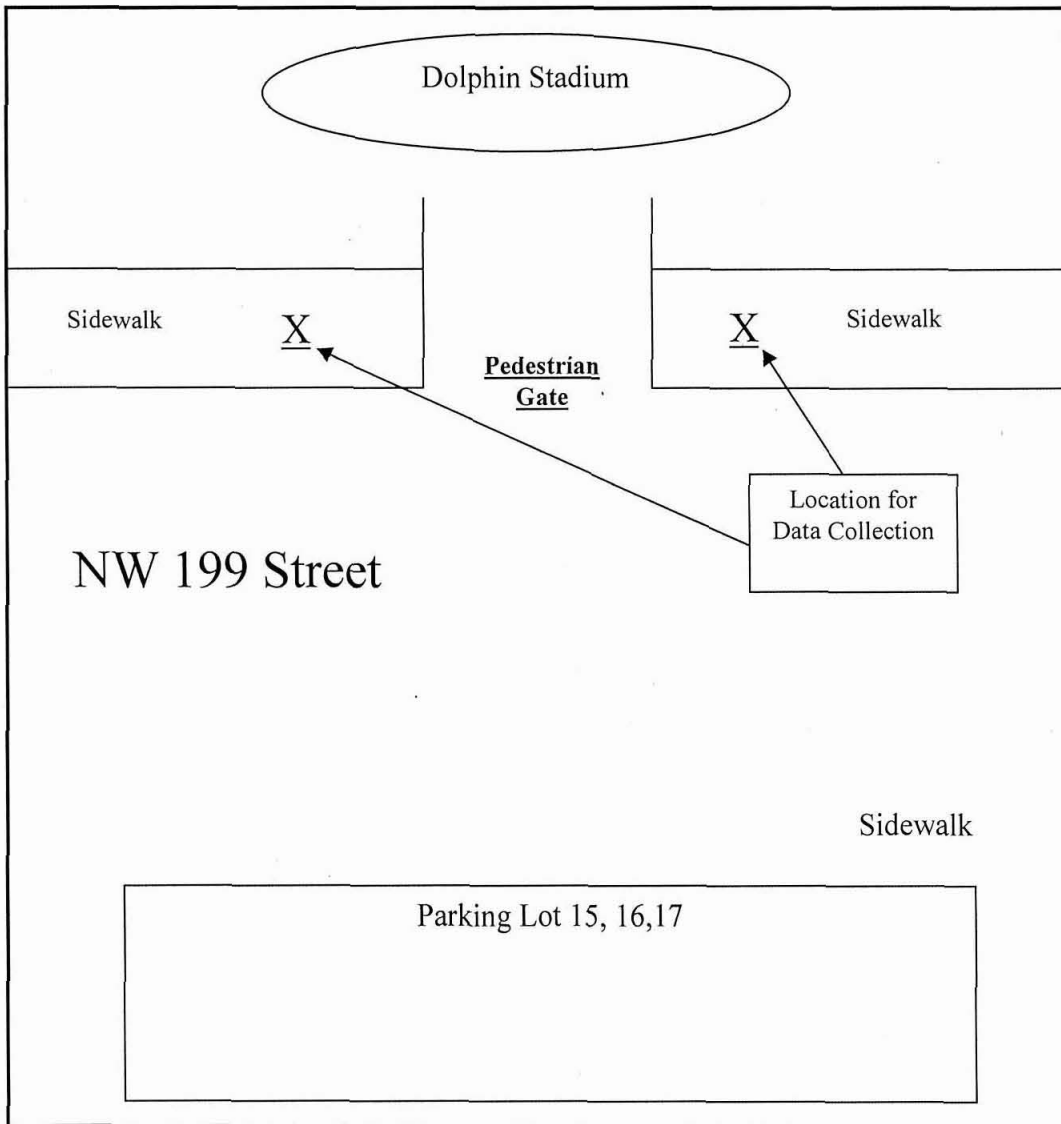


Figure 3. Location for data collection in Dolphin Stadium.

For Devil Rays, four locations for data collection was on the sidewalks of 16th Street, South, 4th Avenue, South, and 10th Street, South which are public areas. Devil Rays' fans park their vehicle in different separate parking lots away from the Tropicana Field (Lot 2, Lot 3, Lot 8, and Lot 9). Therefore, fans had to walk a distance to get into the gates and enter the Tropicana Field. The illustration for fans entrancing pedestrian gates are presented as follows:

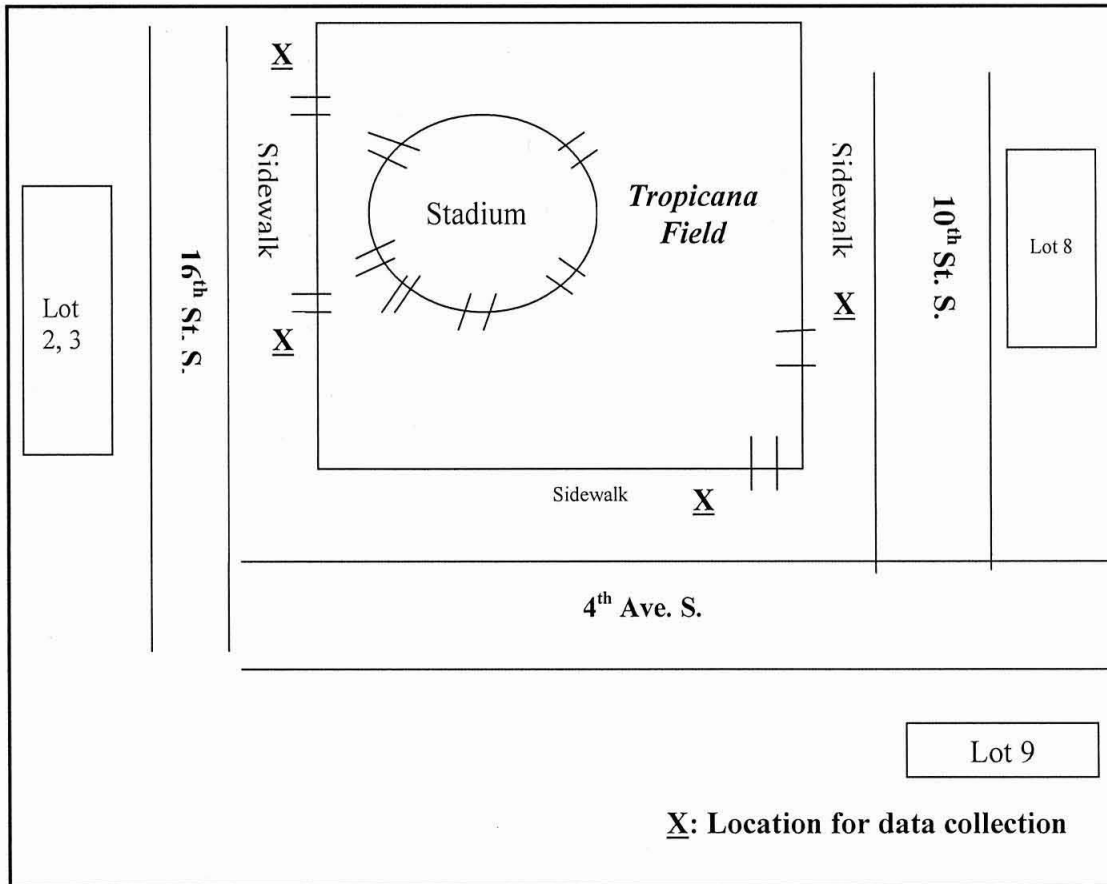


Figure 4. Locations for data collection in Tropicana Field.

Green (1991) noted that if there are 15 predictors, the sample size should be about 138. There are 16 predictors included in this research. Therefore, a minimum of 200 fans for Marlins and 200 fans for Devil Rays is needed. To prevent an over-representation of Devil Rays fans (by selecting 270 from Marlins and 200 from Rays), quota sampling plan was used to maintain a proportionate representation. The established proportional representation is as follows:

$$4,043,400: x \text{ (Marlins)} = 2,988,600: 200 \text{ (Devil Rays)}$$

This results in a proportional sample of 271 Marlins fans and 200 Devil Ray fans. After adjusting, the desired sample size was 270 for the Marlins and 200 fans for the Devil Rays.

Thus, an intercept survey was implemented and fans who intend to participate in this research were selected by the researcher. If there was a low response rate or insufficient number of fans at each location, then additional games would have been attended following the same sampling plan until the sample goals are met of 270 Marlins fans, and 200 Devil Rays' fans. Participants either Marlins or Devil Rays fans were asked to fill out the questionnaire, should be over 18 years old, and can read, write and speak English or Spanish. To avoid repeat responders, the researcher asked whether they had previously completed the survey. The basic requirements were presented on the statement at top section of questionnaire. See Appendix A. In addition, questionnaire with Spanish version was prepared by the researcher because the majority of the population in Miami area speaks Spanish. See Appendix B.

Eligibility Criteria and Exclusion Criteria

The eligibility criteria of the sample was:

1. The geographic area and setting was limited to a public area (sidewalk) near each entrance of Dolphin Stadium and Tropicana Field.
2. Fans agreed to participate in this study and to complete a questionnaire.
3. To protect human subjects, fans were 18 years old at least.
4. Fans who can speak either English or Spanish.
5. People who are either Marlins or Devil Rays fans.

The exclusion criteria of the sample will be:

1. The geographic area and setting was not conducted inside the stadium.
2. Fans that did not agree to participate in this study and do not complete a questionnaire.
3. Fans who were under 18 years old.

4. Fans who could not speak either English or Spanish.
5. In Dolphin Stadium, fans who did not support Marlins team, and in Tropicana Field, fans who did not support Devil Rays team.

Instrumentation

This study measures the independent variables, which are composed of three constructs with 16 subscales and the dependent variable of brand loyalty. The 16 subscales are: success, star player, head coach, management, logo design, stadium, product delivery, tradition, escape, fan identification, peer group acceptance, nostalgia, pride in place, importance, knowledge, and effective reactions. A five-part survey was used in this study. These five parts consist of fan characteristics (part 1), brand association attributes (part 2), brand association benefits (part 3), brand association attitudes (part 4), and brand loyalty (part 5). The survey questionnaire has a total of 59 questions in five parts. It was estimated to take approximately seven minutes to complete the survey. Item numbers of the Team Association Questionnaire were presented in Table 1.

Table 1

Item Numbers of the Team Association Questionnaire

Part	Name	Items
1	Fan characteristics profile	6
2	Brand association attribute factors	23
3	Brand association benefit factors	16
4	Brand association attitude factors	10
5	Brand loyalty	4

Part 1: Fan Characteristics

Description

The characteristics questions developed by the researcher are used to identify the fans by gender, marital status, age, education, annual personal income and estimated time travel to games. The characteristic questions assisted the researcher to understand the fans' demographic characteristics (Appendix A, Part 1).

Part 2: Brand Association Attributes

Description

Part 2 contains 23 items organized by eight subscales that measure brand association attributes. A seven-point Likert scale, with strongly disagree to strongly agree, was used to measure success, star player, head coach, management, logo design, stadium, product delivery, and tradition (Appendix A, Part 2).

Reliability

According to Nunnally and Bernstein (1994), the coefficient alpha values exceeded the minimum standard of .7, representing good estimates of reliability. Gladden and Funk (2002) reported coefficient alpha values ranging from .75 to .94 for the construct of brand association attributes.

Validity

According to Allen and Yen (2002), factor analysis is used to determine construct validity. It has practical significance when factor loadings exceed .50. The factor loadings in the confirmatory factor analysis reported by Gladden and Funk (2002) ranged from the average of .70 (tradition) to .92 (management) for the construct of brand

association attributes, (Appendix A, Part 2). Because each factor loading on each subscale was more than .50, the scale established construct validity for each subscale.

Part 3: Brand Association Benefits

Description

Part 3 of the survey contains 16 items organized by five subscales that measure the construct of brand association attributes. A seven-point Likert scale, with strongly disagree to strongly agree, is used to measure escape, fan identification, peer group acceptance, nostalgia, and pride in place (see Appendix A, Part 3).

Reliability

Gladden and Funk (2002) reported coefficient alpha values ranging from .68 to .89 for the construct of brand association attributes.

Validity

The factor loadings in the confirmatory factor analysis reported by Gladden and Funk (2002) ranged from the average of .70 (peer group acceptance) to .92 (escape) for the construct of brand association benefits. Because each factor loading on each subscale was more than .50, the scale established construct validity for each subscale.

Part 4: Brand Association Attitudes

Description

Part 4 of the survey contains 10 items organized by three subscales that measure the construct of brand association attributes. A seven-point Likert scale, with strongly disagree to strongly agree, is used to measure importance, and knowledge. A five-point semantic differential scale, with foolish and wise, good and bad, worthless and beneficial, and strong and weak, is used to measure affective reactions (Appendix A, Part 4).

Reliability

Gladden and Funk (2002) reported coefficient alpha values ranging from .81 to .89 for the constructs of brand association attitudes.

Validity

The factor loadings in the confirmatory factor analysis reported by Gladden and Funk (2002) ranged from the average of .76 (affective reactions) to .85 (knowledge) for the construct of brand association attitudes, (see Appendix A, Part 4). Because each factor loading on each subscale was more than .50, the scale established construct validity for each subscale.

Part 5: Brand Loyalty

Description

Part 5 of the survey contains four items that measure the construct of brand loyalty. A seven-point Likert scale, with strongly disagree to strongly agree is used to measure the fans' brand loyalty (Appendix A, Part 5).

Reliability

Gladden and Funk (2002) reported coefficient alpha values ranged from .81 to .89 for the constructs of brand loyalty.

Validity

Correlation matrix is used to present construct validity (discriminate validity), when correlation coefficients below the $r < .85$ benchmark, it exhibits a fair amount of discriminate validity. According to the correlation matrix presented by Gladden and Funk (2001), all factors with all correlation coefficients was below the $r < .85$ benchmark.

Data Collection Procedures and Ethical Aspects

1. Obtaining permission to use scales adopted in this study from the scale developers via Lynn student electronic mail was the required prior to collecting data (Appendix C). There are five parts to the survey: Fan Characteristics, Brand Association Attributes, Brand Association Benefits, Brand Association Attitudes, and Brand Loyalty.
2. Fans were contacted outside the stadiums in a public area (Sidewalk). Therefore, there did not need to contact the selected stadiums for data collection approval.
3. An application for the Institutional Review Board (IRB) was submitted.
4. As soon as approval from the IRB of Lynn University was granted, data collection started.
5. Assistance was needed in this research. Five assistants were selected from Lynn University graduate students and the researcher trained the five assists in data collection. The five graduate students were selected by someone who has already completed the required doctoral courses. Therefore, there was no need to train the five assistants in research design and statistics. Training procedure focused on protection of human subjects. Training begun one week prior to the data collection process.
6. Fans were contacted on the sidewalk in front of the entrance gate.
7. During data collection, the researcher supervised the assistants for one half hour before the game started until one half hour after game started, to monitor the process of data collection.

8. Participants was given the Informed Consent Form with an explanation of the dissertation research. Participants were anonymous and there were no identifiers. Therefore, no consent form were signed by the participants.
9. If subjects agree to participate, the assistants provided a clip board with a survey and an ink pen and then moved away so that the subjects completed the survey in private. If the subjects have questions, the data collectors answer them immediately.
10. Each survey was no personal identifiers. After completing the survey, participants placed the completed survey into a paper box prepared by the researcher in order to ensure anonymity and security.
11. The data collection process was conducted on August during the 2006 MLB regular season.
12. One month after the completion of data collection, the termination of study form was submitted to the IRB.

Evaluation of Ethical Aspects of the Study

1. An application for the Institutional Review Board (IRB) was submitted.
2. An IRB approval from Lynn University ensured the study protected human subjects with necessary procedures.
3. Informed Consent was presented in the study. An explanation of research purpose was given to participants.
4. Participants were notified that all data collected from MLB fans is anonymous.
5. No participants were identified.
6. Data is stored in a locked depository box for five years and then will be

destroyed by the researcher.

7. The inserted data in the computer for statistic analysis is protected by the researcher with an eight digital password and will be deleted by the researcher after five years.
8. The IRB was informed when the study is completed.

Based on the evaluation of ethical aspects, this research study is considered ethical.

Method of Data Analysis

Statistical Package for Social Science (SPSS) for Windows version 13.0 was used to analyze the data. Several statistical procedures were used to investigate the research questions and methodologically test data in this study, such as exploratory data analysis, reliability, exploratory factors analysis, chi-square, independent samples t-test, and multiple linear regression analysis. The following steps were taken prior to actual data analysis.

1. Data coding: Assign number codes of levels to the collected data.
2. Internal consistency reliability: Cronbach's alpha was used to estimate internal consistency. Each variable has estimates of Cronbach's alpha exceeding .70 which is the minimum required in social science research (Nunnally, & Bernstein, 1994).
3. Exploratory factor analysis (EFA): Factor loadings of exploratory factor analysis was used to determine the construct validity. In this study, EFA was conducted to assess multiple items of brand association factors and brand loyalty.

Descriptive Statistics

In answering Research Question 1, descriptive statistics was used to measure central tendency, frequency distributions of fans' characteristics, brand association factors in winning team of Florida Marlins and losing team of Tampa Bay Devil Rays. These characteristics are gender, marital status, age, education, annual personal income and time travel to games. In addition, 53 items are included in the brand association factors.

Chi-Square and Independent Samples t-test

To answer Research Question 2, chi-square and independent samples t-test was used to examine the difference in fan characteristics, brand association factors, and fans' brand loyalty between winning and losing teams.

Multiple Linear Regression

Hypotheses 1 to 5 was analyzed by SPSS multiple linear regression to explain the explanatory relationships among fan characteristics, brand association attributes, brand association benefits, brand association attitudes, brand loyalty, and winning and losing teams.

Fan brand loyalty was measured by three dimensions of attributes, benefits, and attitudes. The set of equations is presented as follows:

$$Y = \alpha_1 + b_{11}X_1 + b_{12}X_2 + b_{13}X_3 + b_{14}X_4 + b_{15}X_5 + b_{16}X_6 + b_{17}X_7 + b_{18}X_8 + b_{19}X_9 + b_{20}X_{10} + b_{21}X_{11} + b_{22}X_{12} + b_{23}X_{13} + b_{24}X_{14} + b_{25}X_{15} + b_{26}X_{16} + b_{27}X_{17} + b_{27}X_{18} + \varepsilon_1$$

Here,

Y = Fan brand loyalty

X₁ = Fan characteristics

X₂ = Team characteristics (Winning team; Losing team; and Winning and losing team)

X₃ = Team success

X₄ = Star player

X₅ = Head coach

X₆ = Team management

X₇ = Logo design

X₈ = Stadium/Area

X₉ = Product delivery

X₁₀ = Tradition

X₁₁ = Escape

X₁₂ = Fan identification

X₁₃ = Peer group acceptance

X₁₄ = Nostalgia

X₁₅ = Pride in place

X₁₆ = Importance

X₁₇ = Knowledge

X₁₈ = Affective reactions

MISSING

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Evaluation of Research Methods

In this study, the evaluation of research methods and design is presented as follows:

Internal validity: Strengths

1. Using a quantitative, non-experimental, and explanatory research method with regression analyses is a good and appropriate research design and one that is superior to an exploratory or descriptive design.
2. This quantitative research design has a higher internal validity than qualitative research methods.
3. Data analysis procedures are considered appropriate for answering the research questions and testing the hypotheses in this study.
4. In this study, reliability was estimated and validity was established.

Internal Validity: Weaknesses

1. A non-experimental design is a weakness in comparison to an experimental design.
2. The instrument has not been widely used in the same field by other researchers.

External Validity: Strengths

1. Survey was completed in a natural environment instead of in a lab setting.

External Validity: Weaknesses

1. Limited to the fans of two Major League Baseball teams.
2. Limited to accessible environment.
3. A convenience sampling plan may result in sampling bias.

4. Fans were the only participants from the home games of two MLB teams. Therefore, findings might not be generalized to the target population.
5. Limited to fans attending games, and not those following their teams by other medias, such as television, radio, internet, and news papers.

To answer the research questions and to test the research hypotheses, Chapter III presented the developed research methodology which was included a description of the research design, the sampling plan, instrumentation, data collection procedures, ethical aspects, evaluation of ethical aspects, method of data analysis, and evaluation of research methods. Based on the research methodology, following chapter presented the results of this study.

CHAPTER IV

DATA ANALYSIS AND RESULTS

The procedural details of data analysis and the evaluation of the results were presented in this chapter. To answer Research Question 1, descriptive and inferential statistics analysis was examined with a summary of fan characteristics, attributes, benefits, attitude factors, and brand loyalty. In the following section, reliability and validity of the instruments (*Team Association Questionnaire*) were tested by the researcher, using Cronbach's coefficient alpha and exploratory factor analysis (EFA) to measure internal consistency reliability and construct validity. To answer Research Question 2, Chi-Square and independent samples t-test were adopted to investigate the differences in fans' characteristics, brand association (attributes, benefits, and attitude factors), and brand loyalty of fans of a winning and a losing baseball teams, the Florida Marlins and the Tampa Bay Devil Rays, respectively. Finally, multiple linear regression analysis was adopted to test Hypotheses 1 to 5 to predict the dependent variable (fans' brand loyalty) from three dimensions which are composed of 16 independent variables/factors (success, star player, head coach, management, logo design, stadium, product delivery, tradition, escape, fan identification, peer group acceptance, nostalgia, pride in place, importance, knowledge, and affective reactions).

In this study, 290 Marlins fans were selected to conduct the survey questionnaire from four home games at Dolphin Stadium on August 25, 26, 27 and 28, 2006, during the MLB regular season. Fifteen of 300 questionnaires were incomplete responses and were not used for this study. Therefore, a total of 285 usable questionnaires were gathered for data analysis. Two hundred and twenty Devil Rays fans were selected to fill in the

survey questionnaire at three home games at Tropicana Field on August 18, 19, and 20, 2006 during the MLB regular season. Seven of 220 questionnaires were incomplete and were not used for this study. Therefore, a total of 213 usable questionnaires were obtained for data analysis. All questionnaires were coded by the researcher using SPSS 13.0 version (Statistical Package for Social Science).

Reliability Analysis

Cronbach's coefficient alpha was employed to examine the reliability of the scales (internal consistency reliability). At least two items for each of 16 factors were included in the instrument (Team Association Questionnaire). As presented in Table 2, the Cronbach's coefficient alpha ranged from .761 to .886 for Marlins. Leech, Barrett, and Morgan (2005) reported that Cronbach's alpha values should be greater than .70. Hence, the results of reliability analysis found the scales to be stable and consistent.

Table 2

Reliability Statistics of Team Association Questionnaire for Marlins

Variables	Items	Cronbach's Alpha (α)
Success	3	.828
Star Player	2	.810
Head Coach	3	.761
Management	3	.823
Logo Design	3	.855
Stadium	3	.839
Product Delivery	3	.884
Tradition	3	.863
Escape	3	.864
Fan Identification	3	.779
Peer Group Acceptance	4	.859
Nostalgia	3	.768
Pride in Place	3	.886
Importance	3	.789
Knowledge	3	.819
Affective Reactions	4	.829
Brand Loyalty	4	.832

For Devil Rays fans, the Cronbach's coefficient alpha ranged from .701 to .919. The results of reliability analysis exhibited the scales were stable and consistent. Each Cronbach's coefficient alpha of factors is shown in Table 3.

Table 3

Reliability Statistics of Team Association Questionnaire for Devil Rays

Variables	Items	Cronbach's Alpha (α)
Success	3	.883
Star Player	2	.832
Head Coach	3	.837
Management	3	.760
Logo Design	3	.910
Stadium	3	.848
Product Delivery	3	.866
Tradition	3	.851
Escape	3	.832
Fan Identification	3	.889
Peer Group Acceptance	3	.905
Nostalgia	3	.941
Pride in Place	3	.916
Importance	3	.919
Knowledge	3	.906
Affective Reactions	4	.893
Brand Loyalty	4	.701

The Cronbach's coefficient alpha of each factors for both teams are well above .70. Therefore, the reliability of the instruments in this study is estimated by coefficient and considered as reliable for social science research.

Exploratory Factor Analysis

Originally, factor analysis was used to investigate the relationship among variables when developing a new instrument. The instrument used in this study was adopted from prior research and had been frequently tested and retested by the instrument developers. By frequent rewording and revision, the validity reported by the instrument developers was considered valid. Because the validity was established, the factor

analysis in this study was used to examine whether the instrument is valid in the different sample settings. The result reveals the construct validity of the instrument in this study.

The instrument (Team Association Questionnaire) was composed of three constructs: brand association attribute, brand association benefit, and brand association attitude. Three to eight sub-constructs/factors were included in each construct. There were at least two items in each sub-construct/factor that participants needed to answer. The purpose of the factor analysis is to examine if the item inter-correlations for all item pairings are related to the same sub-construct (convergent validity) and consistent with the original construct sets developed by the instrument developers.

Prior to performing factor analysis, the researcher examined Kaiser-Meayer-Olkin (KMO) and Bartlett's tests to understand whether sufficient items were predicted by each sub-construct (KMO). Bartlett's test is used to examine whether the items have a significant relationship to provide a reasonable basis for factor analysis. Based on Leech, Barrett, and Morgan's (2005) report, KMO should be greater than .70 and Bartlett's significant value should be less than .05 ($p < .05$). Table 4 indicates that the items for all Marlins constructs were sufficient and significant with each other. Hence, factor analysis could be implemented.

Table 4

KMO and Bartlett's Test - Marlins

	KMO Value	Bartlett's Test		
		Value	<i>df</i>	Sig. (<i>p</i>)
Attribute Factors	.702	4096.159	253	.000
Benefit Factors	.711	1899.615	105	.000
Attitude Factors	.714	1050.332	45	.000

As shown in Table 5, 23 items of brand association attribute factors for Marlins were examined by factor analysis. Based on the original design by Gladden and Funk (2001), the items were categorized into eight sub-constructs/factors: success, star player, head coach, management, logo design, stadium, product delivery, and tradition. The results indicated that all factor loadings were greater than .50 and were considered acceptable in construct validity, based on Allen and Yen's (2002) report. In addition, the eight sub constructs/factors were consistent with prior research conducted by Gladden and Funk (2001).

Table 5

Factor Loadings for the Brand Association Attribute Factors - Marlins

Item	Factor Loading							
	1	2	3	4	5	6	7	8
Success # 1	.722							
Success # 2	.700							
Success # 3	.693							
Star Player # 1		.850						
Star Player # 2		.820						
Head Coach # 1			.754					
Head Coach # 2			.771					
Head Coach # 3			.637					
Management # 1				.764				
Management # 2				.789				
Management # 3				.695				
Logo Design # 1					.819			
Logo Design # 2					.807			
Logo Design # 3					.737			
Stadium # 1						.723		
Stadium # 2						.733		
Stadium # 3						.689		
Product Delivery # 1							.803	
Product Delivery # 2							.840	
Product Delivery # 3							.847	
Tradition # 1								.802
Tradition # 2								.835
Tradition # 3								.751

As shown in Table 6, 16 items of brand association benefit factors for Marlins were examined by factor analysis. Based on the original design by Gladden and Funk (2001), the items were categorized into five sub-constructs/factors: escape, fan identification, peer group acceptance, nostalgia, and pride in place. The results indicated that the factor loadings ranged from .668 to .843 and were considered as acceptable construct validity based on Allen and Yen's (2002) report (1998) that factor loadings should be greater than .50. In addition, the five categorized sub constructs/factors were consistent with prior research by Gladden and Funk (2001).

Table 6

Factor Loadings for the Brand Association Benefit Factors - Marlins

Item	Factor Loading				
	1	2	3	4	5
Escape # 1	.785				
Escape # 2	.835				
Escape # 3	.777				
Fan Identification # 1		.671			
Fan Identification # 2		.746			
Fan Identification # 3		.729			
Peer Group Acceptance # 1			.739		
Peer Group Acceptance # 2			.826		
Peer Group Acceptance # 3			.767		
Nostalgia # 1				.668	
Nostalgia # 2				.730	
Nostalgia # 3				.689	
Pride in Place # 1					.828
Pride in Place # 2					.843
Pride in Place # 3					.787

As shown in Table 7, ten items of brand association attitude factors for Marlins were examined by factor analysis. Based on the original design by Gladden and Funk (2001), the items were categorized into three sub-constructs/factors: importance, knowledge, and affective reactions. The results indicated that the factor loadings ranged from .564 to .781 and were considered as acceptable construct validity based on Allen and Yen's (2002) report that factor loadings should be greater than .50. In addition, the three categorized sub-constructs/factors were consistent with prior research by Gladden and Funk (2002).

Table 7

Factor Loadings for the Brand Association Attitude Factors – Marlins

Item	Factor Loading		
	1	2	3
Importance # 1	.692		
Importance # 2	.762		
Importance # 3	.676		
Knowledge # 1		.725	
Knowledge # 2		.781	
Knowledge # 3		.721	
Affective Reactions # 1			.663
Affective Reactions # 2			.772
Affective Reactions # 3			.677
Affective Reactions # 4			.564

Table 8 indicated that the items for all Devil Rays constructs were sufficient and significant with each other (KMO value > .70, Bartlett's significant value $p < .05$). Therefore, factor analysis could be implemented.

Table 8

KMO and Bartlett's Test – Devil Rays

	KMO Value	Bartlett's Test		
		Value	df	Sig. (p)
Attribute Factors	.708	2613.396	253	.000
Benefit Factors	.769	2194.334	105	.000
Attitude Factors	.783	1489.279	45	.000

For Devil Rays fans, as shown in Table 9, 23 items of brand association attribute factors were examined by factor analysis. Based on the original design by Gladden and Funk (2001), the items were categorized into eight sub-constructs/factors: success, star player, head coach, management, logo design, stadium, product delivery, and tradition.

The results indicated that the factor loadings ranged from .704 to .870 and considered as acceptable construct validity based on Allen and Yen's (2002) report that factor loadings should be greater than .50. In addition, the eight categorized sub-constructs/factors were consistent with prior research by Gladden and Funk (2001).

Table 9

Factor Loadings for the Brand Association Attribute Factors – Devil Rays

Item	Factor Loading							
	1	2	3	4	5	6	7	8
Success # 1	.781							
Success # 2	.869							
Success # 3	.821							
Star Player # 1		.859						
Star Player # 2		.837						
Head Coach # 1			.820					
Head Coach # 2			.812					
Head Coach # 3			.704					
Management # 1				.720				
Management # 2				.831				
Management # 3				.601				
Logo Design # 1					.863			
Logo Design # 2					.870			
Logo Design # 3					.832			
Stadium # 1						.765		
Stadium # 2						.750		
Stadium # 3						.819		
Product Delivery # 1							.771	
Product Delivery # 2							.789	
Product Delivery # 3							.841	
Tradition # 1								.779
Tradition # 2								.822
Tradition # 3								.773

As shown in Table 10, 16 items of brand association benefit factors for Devil Rays were examined by factor analysis. Based on the original design by Gladden and Funk (2001), the items were categorized into five sub-constructs/factors: escape, fan identification, peer group acceptance, nostalgia, and pride in place. The results indicated

that the factor loadings ranged from .753 to .912 and considered as acceptable construct validity based on Allen and Yen's (2002) report that factor loadings should be greater than .50. In addition, the five categorized sub-constructs/factors were consistent with prior research conducted by Gladden and Funk (2001).

Table 10

Factor Loadings for the Brand Association Benefit Factors – Devil Rays

Item	Factor Loading				
	1	2	3	4	5
Escape # 1	.771				
Escape # 2	.753				
Escape # 3	.757				
Fan Identification # 1		.820			
Fan Identification # 2		.827			
Fan Identification # 3		.826			
Peer Group Acceptance # 1			.815		
Peer Group Acceptance # 2			.891		
Peer Group Acceptance # 3			.867		
Nostalgia # 1				.884	
Nostalgia # 2				.912	
Nostalgia # 3				.902	
Pride in Place # 1					.842
Pride in Place # 2					.885
Pride in Place # 3					.859

As shown in Table 11, ten items of brand association attitude factors for Devil Rays were examined by the factor analysis. Based on the original design by Gladden and Funk (2001), the items were categorized into three sub-constructs/factors: importance, knowledge, and affective reactions. The results indicated that the factor loadings ranged from .675 to .897 and were considered as acceptable construct validity based on Allen and Yen's (2002) that factor loadings should be greater than .50. In addition, the three categorized sub-constructs/factors were consistent with prior research conducted by Gladden and Funk (2002).

Table 11

Factor Loadings for the Brand Association Attitude Factors – Devil Rays

Item	Factor Loading		
	1	2	3
Importance # 1	.852		
Importance # 2	.889		
Importance # 3	.863		
Knowledge # 1		.823	
Knowledge # 2		.897	
Knowledge # 3		.824	
Affective Reactions # 1			.854
Affective Reactions # 2			.784
Affective Reactions # 3			.675
Affective Reactions # 4			.742

After performing factor analysis, the results of factor loadings indicated that the instrument is valid in the different sample setting (Florida Marlins and Tampa Bay Devil Rays). The construct validity of the instrument in this study was established.

Research Question 1

What are the fans' characteristics, attribute factors (success, star player, head coach, management, logo design, stadium, product delivery, tradition), benefit factors (escape, fan identification, peer group acceptance, pride in place), attitude factors (importance, knowledge, effect) and fans' brand loyalty to the Florida Marlins and Tampa Bay Devil Rays?

Fan Characteristic Descriptive Analysis

Gender

Of 285 Marlins fans, 166 (58.2%) were males, 119 (41.8%) were females. Of 213 Devil Rays fans, 111 (52.1%) were males, 102 (47.9%) were females. The frequency distribution of sample by gender is shown in Table 12.

Table 12

Frequency Distribution of Sample by Gender

Gender	Marlins		Devil Rays	
	Frequency (<i>F</i>)	Valid Percent (%)	Frequency (<i>F</i>)	Valid Percent (%)
Male	166	58.2%	111	52.1%
Female	119	41.8%	102	47.9%
Total	285	100%	213	100%

Marital Status

Among Marlins fans, 142 (49.8%) were married, 75 (26.3%) were single, and 68 (23.9%) were living with a partner or significant other. Among Devil Rays fans, 92 (43.2%) were married, 57 (26.8%) were single, and 64 (30.0%) were living with a partner or significant other. The frequency distribution of sample by marital status is shown in Table 13.

Table 13

Frequency Distribution of Sample by Marital Status

Marital Status	Marlins		Devil Rays	
	Frequency (<i>F</i>)	Valid Percent (%)	Frequency (<i>F</i>)	Valid Percent (%)
Married	142	49.8%	92	43.2%
Single	75	26.3%	57	26.8%
Living with partner or significant other	68	23.9%	64	30.0%
Total	285	100%	213	100%

Age

Among Marlins fans, 30 (10.5%) ranged from 18 to 24 years old, 62 (21.8%) ranged from 25 to 34 years old, 60 (21.1%) ranged from 35 to 44 years old, 74 (26%) ranged from 45 to 54 years old, 36 (12.6%) ranged from 55 to 64 years old, and 23 (8%) were 65 years old or older. Among Devil Rays fans, 14 (6.6%) ranged from 18 to 24 years old, 47 (22%) ranged from 25 to 34 years old, 72 (33.8%) ranged from 35 to 44 years old, 41 (19.2%) ranged from 45 to 54 years old, 21 (9.9%) ranged from 55 to 64 years old, and 18 (8.5%) were 65 years old or older. The frequency distribution of sample by age is shown in Table 14.

Table 14

Frequency Distribution of Sample by Age

Age	Marlins		Devil Rays	
	Frequency (<i>F</i>)	Valid Percent (%)	Frequency (<i>F</i>)	Valid Percent (%)
18-24	30	10.5%	14	6.6%
25-34	62	21.8%	47	22%
35-44	60	21.1%	72	33.8%
45-54	74	26%	41	19.2%
55-64	36	12.6%	21	9.9%
65 or older	23	8%	18	8.5%
Total	285	100%	213	100%

Education Level

Among Marlins' fans, 23 (8.1%) did not graduate from high school, 98 (34.4%) graduated from high school, 142 (49.8%) graduated from college, 22 (7.7%) had at least one graduate degree. Among Devil Rays' fans, 40 (18.8%) did not graduate high school, 64 (30%) graduated from high school, 85 (39.9%) graduated from college, and 24 (11.3%) had at least one graduate degree. The frequency distribution of sample by age is shown in Table 15.

Table 15

Frequency Distribution of Sample by Education Level

Education Level	Marlins		Devil Rays	
	Frequency (<i>F</i>)	Valid Percent (%)	Frequency (<i>F</i>)	Valid Percent (%)
Did not graduate high school	23	8.1%	40	18.8%
Graduated from high school	98	34.4%	64	30%
College	142	49.8%	85	39.9%
Graduated from graduate school	22	7.7%	24	11.3%
Total	285	100%	213	100%

Annual Income

The statistical results indicated that 18 (6.3%) Marlins' fans earned a personal annual income of less than \$15,000. Thirty-two (11.3%) Marlins' fans earned a personal annual income from \$15,000 to \$29,999. 94 (33%) Marlins' fans earned a personal annual income between \$30,000 and \$44,999. Seventy-nine (27.7%) Marlins' fans earned a personal annual income of \$45,000 to \$59,999. Forty-four (15.4%) Marlins' fans earned a personal annual income of \$60,000 to \$74,999. Eighteen (6.3%) Marlins' fans earned a personal annual income of than \$75,000.

Thirty-eight (17.8%) Devil Rays fans earned a personal annual income of less than \$15,000. Forty-seven (22.1%) Devil Rays fans earned a personal annual income between \$15,000 and \$29,999. Fifty-one (24%) Devil Rays fans earned a personal annual income that ranged from \$30,000 to \$44,999. Thirty-nine (18.3%) Devil Rays fans earned a personal annual income ranged from \$45,000 to \$59,999. Twenty-nine (13.6%) Devil Rays fans earned a personal annual income ranged from \$60,000 to \$74,999. Nine (4.2%) Devil Rays fans earned more than \$ 75,000 annually. The frequency distribution of sample by personal annual income is shown in Table 16.

Table 16

Frequency Distribution of Sample by Personal Annual Income

Annual Personal Income	Marlins		Devil Rays	
	Frequency (F)	Valid Percent (%)	Frequency (F)	Valid Percent (%)
Less than \$15,000	18	6.3%	38	17.8%
\$ 15,000 to \$29,999	32	11.3%	47	22.1%
\$ 30,000 to \$44,999	94	33%	51	24%
\$ 45,000 to \$59,999	79	27.7%	39	18.3%
\$ 60,000 to \$74,999	44	15.4%	29	13.6%
More than \$75,000	18	6.3%	9	4.2%
Total	285	100%	213	100%

Estimated Travel Time to Games

The average Marlins fan, as the average Devil Rays fan, spent between 15 and 60 minutes traveling to games. Fewer than 10% of Marlins and Devil Rays fans take more than an hour to travel to games. Fewer than 10% of fans spend less than 15 minutes or more than 60 minutes traveling to games. The frequency distribution of estimate time travel to games is shown in Table 17.

Table 17

Frequency Distribution of Sample by Estimated Travel Time to Games

Estimate Travel Time to Games	Marlins		Devil Rays	
	Frequency (<i>F</i>)	Valid Percent (%)	Frequency (<i>F</i>)	Valid Percent (%)
Within 15 minutes	14	4.9%	16	7.5%
15 minutes to 30 minutes	115	40.4%	112	52.6%
31 minutes to 60 minutes	132	46.3%	69	32.4%
Over 60 minutes	24	8.4%	16	7.5%
Total	285	100%	213	100%

Frequency Distribution of Marlins Fans' Responses

Marlins fans were asked to complete the 53-item Team Association Questionnaire developed by Gladden and Funk (2002). The Team Association Questionnaire contains three dimensions of brand association measurement. Each item was rated on a 7-point *Likert* scale ranging from "strongly disagree" (1) to "strongly agree" (7). Table 20 presents the percentage distribution of Marlins fans' response categories of the Team Association Questionnaire, item means, and dimension means.

The 53-item Team Association Questionnaire had a total score range between 53 and 371. The average Team Association Questionnaire total score was 268.03, with an average item score of 5.05. The highest-rated dimension was brand association benefits and the lowest rated dimension was brand association attributes. For the 23-item brand association attributes, the average dimension score was 106.89, with a possible range of 23 to 161, and an average item score of 4.70. For the dimension of brand association benefits, the average dimension score was 86.13, with a possible range of 16 to 112, and an average item score of 5.37. For the 10-item brand association attitude dimension, the average dimension score was 52.41, with a possible range of 10 to 70, and an average

item score of 5.24. For the 4-item brand loyalty, the average score was 22.6, with a possible range of 4 to 28, and an average item score of 5.65.

As shown in Table 18, the highest average item mean on the total scale was in the brand association attitude dimension: “What are your feelings about your favorite team?” (6.04). The lowest average item mean was “The manager/coach of my favorite team does a good job” (3.33), of the brand association attribute dimension. This item also had the highest percentage of low ratings of 1 or 2 (12.6%). “Being a fan of my favorite team is important to me,” for the brand association attitude dimension had the highest percentage ratings of 6 or 7 (60.4%).

Table 18

Frequency Distribution of Marlins Fans’ Responses (N=285)

	Response Categories Percent Distribution (%)							Mean
	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7	
Brand Association Attributes								4.65
1. I like the colors of my favorite team	0	2.8	11.9	41.1	30.5	11.9	1.8	4.42
2. The architecture of my favorite team’s stadium is attractive	0	1.8	3.5	13.0	37.2	22.5	22.1	5.41
3. I do care whether my favorite team wins or loses	0	1.8	4.2	11.9	36.8	24.2	21.1	5.26
4. I like the manager/head coach of my favorite team	1.4	8.8	29.8	41.8	15.8	2.5	0	3.69
5. The front office of my favorite team does its best to field a good team	0.7	7	28.8	40	17.2	6	0.4	3.85
6. My favorite team’s games are exciting	0	.04	2.8	11.2	38.2	36.1	11.2	5.52
7. My favorite team have star players that I like to watch	0	1.1	1.8	8.4	25.6	33.7	29.5	5.78
8. My favorite team has a history of winning	0.7	6	24.2	41.8	21.1	6.0	0.4	3.96
9. I like the logo of my favorite team	0	0.7	13.7	45.6	33.7	6.3	0	4.31
10. My favorite team’s stadium has “character”	0	0	4.9	14.0	38.2	34.0	8.8	5.28
11. My favorite team’s manager/head coach is well known throughout the sport	0	5.6	34.7	44.9	13.3	1.4	0	3.70
12. I like to watch my favorite team’s star players	0	0	1.1	8.8	28.8	44.6	16.8	5.67

	Response Categories Percent Distribution (%)							Mean
	Strongly Disagree						Strongly Agree	
	1	2	3	4	5	6	7	
13. My favorite team has a rich history	0	2.8	24.9	43.9	24.9	3.5	0	4.01
14. My favorite team's front office does a good job running the team	0	2.1	23.9	48.1	23.2	2.8	0	4.01
15. It is very important that my favorite team reaches the post-season	0	0.4	3.9	15.4	38.2	33.7	8.4	5.26
16. My favorite team's games are entertaining	0	0.4	2.8	11.2	38.2	36.1	11.2	5.41
17. My favorite team's uniforms are attractive	0	1.8	9.1	50.2	32.3	6.7	0	4.33
18. My favorite team's stadium enhances the enjoyment of attending games	0	0	3.5	15.1	40.7	34.0	6.7	5.25
19. The front office of my favorite team makes wise player personnel decisions	0	3.9	31.2	47	15.4	2.5	0	3.81
20. My favorite team has no history	0.4	1.4	23.9	49.8	22.5	2.1	0	3.99
21. My favorite team's games are enjoyable	0	0.4	1.8	11.2	39.3	37.5	9.8	5.41
22. The manager/head coach of my favorite team does a good job	0.4	12.6	46.7	35.1	4.9	0.4	0	3.33
23. It is important that my favorite team competes for league championships	0	0.4	3.2	14.4	43.2	33.0	6	5.23
Brand Association Benefits								5.38
24. Watching, reading, and talking about my favorite team provides a temporary escape from life's problems	0.4	2.5	2.5	10.5	31.9	28.8	23.5	5.52
25. Thinking of my favorite team brings back good memories	0	0	1.4	3.9	24.9	34.7	35.1	5.98
26. I began following my favorite team because of my friends	0	1.1	2.8	10.2	28.4	28.8	28.8	5.67
27. My favorite team helps its citizens be proud of where they live	1.4	8.8	25.6	35.8	20.4	7.7	0.4	3.89
28. It is important that my friends see me as a fan of my favorite team	0	0.4	2.1	10.5	30.9	41.8	14.4	5.55
29. I have fond memories of following my favorite team	0	0	0.7	1.8	21.1	53.3	23.2	5.96
30. Watching, reading, and talking about my favorite team helps me forget my day-to-day problems	0	0.7	2.8	12.3	35.8	37.5	10.9	5.39
31. My favorite team helps elevate the image of its community	0	5.3	27	38.2	23.9	4.6	1.1	3.99
32. It is important to follow the same team as my friends	0.7	2.7	36	20.6	24.3	8.7	7	5.62
33. My friends and family recognize me as a fan of my favorite team	0	0	1.8	6.3	25.3	37.5	29.1	5.86
34. When someone praises my favorite team, it feels like a compliment	0	0	0	4.2	23.9	49.1	22.8	5.91
35. I have fond memories of following my favorite team with friends and/or family members	0	0	0.4	1.4	20	54	24.2	6.00
36. My favorite team brings prestige to the community	0.7	3.9	28.1	39.3	24.2	3.2	0.7	3.95

	Response Categories Percent Distribution							Mean
	Strongly Disagree						Strongly Agree	
	1	2	3	4	5	6	7	
37. Watching, reading, and talking about my favorite team takes me away from life's hassles	0.4	2.5	2.5	10.5	31.9	28.8	23.5	5.31
38. I follow my favorite team because my friends like the same team	0	0.4	1.4	8.4	32.6	39.3	17.9	5.63
39. When I talk about my favorite team, I usually say "we" rather than "they"	0	0	0	3.5	25.6	48.1	22.8	5.90
Brand Association Attitudes								5.24
40. I possess a great deal of knowledge about my favorite team	3.1	11	38.6	36.1	10.2	1.1	0	3.45
41. I consider my favorite team to be personally important	0	0	0.7	4.6	23.9	45.6	25.3	5.90
42. Being a fan of my favorite team is important to me	0	0	0.7	3.2	16.8	60.4	18.9	5.94
43. If I were to list everything I knew about my favorite team, the list would be quite long	0	4.6	43.9	42.1	7.7	1.8	0	3.58
44. Compared to other sport teams, I consider myself an expert about my favorite team	0	5.3	47.4	40.4	7	0	0	3.49
45. Compared to how I feel about other professional teams, my favorite team is very important to me	0	0.4	0	2.1	19.6	51.6	26.3	6.01
46. What are your feelings about your favorite team (Foolish to Wise)	0	0	0.7	4.6	16.1	53.7	24.9	6.04
47. What are your feelings about your favorite team (Bad to Good)	0	0	0.7	4.6	16.1	53.7	24.9	5.98
48. What are your feelings about your favorite team (Worthless to Beneficial)	0	0	0.4	3.5	16.1	57.9	22.1	5.98
49. What are your feelings about your favorite team (Weak to Strong)	0	0.4	0.4	2.1	16.5	53.3	27.4	6.04
Brand Loyalty								
50. I would be willing to defend my favorite team publicly, even if it caused controversy	0.7	0	0.2	0	42.1	48.4	7.7	5.64
51. It would be difficult for me to change my allegiance from my favorite team to another professional team	0	1	0.4	3.2	36.1	51.6	7.7	5.64
52. I consider myself a committed fan of my favorite team	0	0.3	0	1.4	41.4	50.2	6.7	5.62
53. I would watch a game of my favorite team regardless of which team they were playing against	0	0.2	0.4	1.1	32.3	60.4	5.6	5.70
Average Item Score for Total Team Association Questionnaire								5.05
Total Team Association Questionnaire Score (range 53-371)								268.03

Frequency Distribution of Devil Rays Fans' Responses

Table 19 presents the percent distribution of Devil Rays fans' response categories of *Team Association Questionnaire*, item means, and dimension means. The 53-item *Team Association Questionnaire* had a total score range between 53 and 371. The average *Team Association Questionnaire* total score was 263.92, with an average item score of 4.98. The highest rated dimension was brand association benefits and the lowest rated was brand association attributes. For the 23-item brand association attributes, the average dimension score was 106.57, with a range of 23 to 161, and an average item score of 4.63. For the dimension of brand association benefits, the average dimension score was 87.15, with a range of 16 to 112, and an average item score of 5.45. For the 10-item brand association attitude dimension, the average dimension score was 48.83, with a possible range of 10 to 70, and an average item score of 4.85. For the 4-item brand loyalty, the average score was 21.37, with a range of 4 to 28, and an average item score of 5.34.

As shown in Table 19, the highest average item mean on the total scale was in the brand association benefit dimension: "My friends and family recognize me as a fan of my favorite team" (5.68). The lowest average item mean was "The front office of my favorite team makes wise player personnel decisions" (3.61), of the brand association attribute dimension. "I like the colors of my favorite team," for the brand association attribute dimension had the highest percentage ratings of 1 or 2 (9.9%). "It is very important that my favorite team reaches the post-season" and "It is important that my favorite team competes for league championships," for the brand association attribute dimension had the highest percentage ratings of 6 or 7 (46.9%).

Table 19

Frequency Distribution of Devil Rays Fans' Responses (N=213)

	Response Categories Percent Distribution (%)							Mean
	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7	
Brand Association Attributes								4.63
1. I like the colors of my favorite team	1.9	9.9	20.7	35.2	23.9	6.1	2.3	3.97
2. The architecture of my favorite team's stadium is attractive	0	0.9	2.3	10.3	34.3	30.5	21.6	5.56
3. I do care whether my favorite team wins or loses	0.5	1.9	1.4	8.5	29.1	33.8	24.9	5.65
4. I like the manager/head coach of my favorite team	0.9	8.9	30	39.4	14.1	5.2	1.4	3.78
5. The front office of my favorite team does its best to field a good team	0.5	5.2	24.9	40.4	21.1	9	0	4.00
6. My favorite team's games are exciting	0	0.5	3.3	11.3	30	30.	24.4	5.60
7. My favorite team have star players that I like to watch	0.5	4.7	23	41.8	25.8	3.8	0.5	4.01
8. My favorite team has a history of winning	0	2.3	11.7	41.8	27.2	12.7	4.2	4.49
9. I like the logo of my favorite team	0	6.6	24.9	32.4	27.7	6.6	1.9	4.08
10. My favorite team's stadium has "character"	0	0.5	0.5	8.9	37.1	41.8	11.3	5.53
11. My favorite team's manager/head coach is well known throughout the sport	0	2.8	29.6	43.2	21.1	3.3	0	3.92
12. I like to watch my favorite team's star players	0.5	4.7	24.9	42.3	23.5	4.2	0	3.96
13. My favorite team has a rich history	0	0.5	15	45.1	30	8	1.4	4.34
14. My favorite team's front office does a good job running the team	0	2.3	24.9	47.4	22.5	2.8	0	3.99
15. It is very important that my favorite team reaches the post-season	0	1.4	2.3	7.5	28.2	46.9	13.6	5.58
16. My favorite team's games are entertaining	0	0	1.9	13.6	28.2	42.3	14.1	5.53
17. My favorite team's uniforms are attractive	0.9	7.5	24.9	39	21.6	4.2	1.9	3.93
18. My favorite team's stadium enhances the enjoyment of attending games	0	0.5	0.9	8	38.5	35.2	16.9	5.58
19. The front office of my favorite team makes wise player personnel decisions	0	6.1	39.4	42.7	10.8	0.9	0	3.61
20. My favorite team has no history	0	2.3	14.1	42.7	30	8.9	1.9	4.35
21. My favorite team's games are enjoyable	0	0	1.4	8.5	35.2	37.1	17.8	5.62
22. The manager/head coach of my favorite team does a good job	0	2.3	31.9	44.1	17.8	3.8	0	3.89
23. It is important that my favorite team competes for league championships	0	0.9	3.3	5.6	29.1	46.9	14.1	5.60
Brand Association Benefits								5.45
24. Watching, reading, and talking about my favorite team provides a temporary escape from life's problems	0	0.5	5.2	8.5	29.6	26.8	29.6	5.66
25. Thinking of my favorite team brings back good memories	0.9	4.2	8	18.8	19.7	24.9	23.5	5.21

	Response Categories Percent Distribution							Mean
	Strongly Disagree	(%)					Strongly Agree	
	1	2	3	4	5	6	7	
26. I began following my favorite team because of my friends	0	1.4	5.2	16.9	30.5	22.1	23.9	5.38
27. My favorite team helps its citizens be proud of where they live	0	0.9	8.5	11.3	21.1	31	27.2	5.54
28. It is important that my friends see me as a fan of my favorite team	0	0.5	6.1	16	26.8	39	11.7	5.33
29. I have fond memories of following my favorite team	0	2.3	12.7	16.9	19.2	32.9	16	5.15
30. Watching, reading, and talking about my favorite team helps me forget my day-to-day problems	0	0	2.3	10.3	31.5	40.8	15	5.56
31. My favorite team helps elevate the image of its community	0	0	5.6	15.5	18.3	41.3	19.2	5.53
32. It is important to follow the same team as my friends	0.7	1.4	5.4	15.2	24.3	27.3	25.7	5.42
33. My friends and family recognize me as a fan of my favorite team	0	0.5	5.2	7.5	27.2	31.9	27.7	5.68
34. When someone praises my favorite team, it feels like a compliment	0	0	6.1	6.6	30	42.7	14.6	5.53
35. I have fond memories of following my favorite team with friends and/or family members	0.5	4.2	9.4	16	23.9	34.3	11.7	5.08
36. My favorite team brings prestige to the community	0	0.5	5.2	13.6	16.9	42.3	21.6	5.60
37. Watching, reading, and talking about my favorite team takes me away from life's hassles	0	0	0.9	9.9	35.2	38	16	5.58
38. I follow my favorite team because my friends like the same team	0	0.5	7	13.6	31.9	32.4	14.6	5.32
39. When I talk about my favorite team, I usually say "we" rather than "they"	0	0	3.8	8.5	29.1	43.2	15.5	5.58
Brand Association Attitudes								4.85
40. I possess a great deal of knowledge about my favorite team	0.5	0.9	6.1	23	22.1	29.6	17.8	4.96
41. I consider my favorite team to be personally important	0	5.2	20.2	23.5	23	15	13.1	4.62
42. Being a fan of my favorite team is important to me	0	0.5	23	30.5	22.5	18.3	5.2	4.51
43. If I were to list everything I knew about my favorite team, the list would be quite long	0	0.5	11.7	23.9	26.3	30.5	7	4.96
44. Compared to other sport teams, I consider myself an expert about my favorite team	0	2.8	11.7	18.3	23	33.8	10.3	5.04
45. Compared to how I feel about other professional teams, my favorite team is very important to me	0	1.4	23	29.6	23.5	16.9	5.6	4.48
46. What are your feelings about your favorite team (Foolish to Wise)	0	2.3	14.6	20.7	16.9	24.4	21.1	5.10
47. What are your feelings about your favorite team (Bad to Good)	0	1.4	15	14.6	30.5	29.6	8.9	4.99
48. What are your feelings about your favorite team (Worthless to Beneficial)	0	0.9	8.9	22.5	29.6	27.2	10.8	5.06
49. What are your feelings about your favorite team (Weak to Strong)	0	0.5	7	21.6	32.4	28.6	9.9	5.11

	Response Categories Percent Distribution (%)							Mean
	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7	
Brand Loyalty								5.34
50. I would be willing to defend my favorite team publicly, even if it caused controversy	0	2	3.2	4.7	51.2	34.7	4.2	5.40
51. It would be difficult for me to change my allegiance from my favorite team to another professional team	0	0	0.9	17.4	41.8	32.4	7.5	5.28
52. I consider myself a committed fan of my favorite team	0	0.4	0.9	17	45.1	31.5	5.2	5.23
53. I would watch a game of my favorite team regardless of which team they were playing against	0.6	1.4	0.4	5.2	47.4	39.4	5.6	5.46
Average Item Score for Total Team Association Questionnaire								4.98
Total Team Association Questionnaire Score (range 53-371)								263.92

Research Question 2

Are there differences in fans' characteristics, brand association (attribute, benefit, and attitude factors), and brand loyalty of fans of winning and losing baseball teams (Florida Marlins and Tampa Bay Devil Rays)?

There were statistically significant differences in fan characteristics between Marlins' and Devil Rays fans: annual personal income ($p = .000$), and estimated travel time to games ($p = .005$). As shown in Table 20 and Table 21, gender and Marital status have no significant difference between Marlins and Devil Rays' fans. And Table 22 indicated that Marlins fans have earned much more than Devil Rays fans. In addition, Marlins fans spend more time traveling to games.

Table 20

Differences in Gender

Variable	n	Team		χ^2	p
		Marlins	Devil Rays		
Gender				1.86	.173
Male	277	166	111		
Female	221	119	102		
Total	498				

Table 21

Differences in Marital Status

Variable	n	Team		χ^2	p
		Marlins	Devil Rays		
Marital Status				2.91	.233
Married	234	142	92		
Single	132	75	57		
Living with Parents or Significant Other	132	68	64		
Total	498				

Table 22

Differences in Age, Education, Annual Income, and Time Travel to Games

Variable	M	SD	t	df	p
Age			.284 ^a	473.12 ^a	.776
Marlins	3.326	1.425			
Devil Rays	3.291	1.325			
Education			1.751 ^a	400.31	.081
Marlins	2.572	.750			
Devil Rays	2.437	.922			
Annual Income			4.337 ^a	418.78 ^a	.000
Marlins	3.537	1.243			
Devil Rays	3.005	1.432			
Travel Time to Games			2.795	496	.005
Marlins	2.583	.715			
Devil Rays	2.399	.737			

^aThe t and df were adjusted because the variances were not equal.

In the dimension of brand association attributes, Table 23 shows that there were statistically significant differences on success ($p=.000$), star player ($p=.000$), head coach ($p=.000$), logo design ($p=.000$), stadium ($p=.002$), and tradition ($p=.000$) between Marlins

and Devil Rays. For Marlins' fans, star player, logo design, and tradition were scoring higher than Devil Rays fans. Compared to Marlins fans, the average scores of team success, head coach, and the facility of stadium for Devil Rays fans were significantly higher than the scores for Marlins fans. Marlins fans did not differ significantly from Devil Rays fans when it came to beliefs about team management and product delivery.

Table 23

Differences in Brand Association Attributes Between Marlins and Devil Rays

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Success			-3.504	496	.000
Marlins	5.323	.875			
Devil Rays	5.609	.935			
Star Player			21.427	496	.000
Marlins	5.725	.909			
Devil Rays	3.986	.878			
Head Coach			-4.154 ^a	418.86 ^a	.000
Marlins	3.573	.709			
Devil Rays	3.864	.817			
Management			.356	496	.722
Marlins	3.891	.770			
Devil Rays	3.867	.728			
Logo Design			4.224 ^a	373.23 ^a	.000
Marlins	4.354	.771			
Devil Rays	3.995	1.046			
Stadium			-3.060	496	.002
Marlins	5.315	.893			
Devil Rays	5.556	.837			
Product Delivery			-1.663	496	.097
Marlins	5.447	.909			
Devil Rays	5.582	.886			
Tradition			-5.437	496	.000
Marlins	3.987	.795			
Devil Rays	4.393	.861			

^aThe *t* and *df* were adjusted because the variances were not equal.

In the dimension of brand association benefits, Table 24 shows that there were statistically significant differences on escape ($p=.019$), fan identification ($p=.000$), peer group acceptance ($p=.003$), nostalgia ($p=.000$), and pride in place ($p=.000$) between

Marlins and Devil Rays. For Marlins fans, fan identification, peer group acceptance, and nostalgia were higher than among Devil Rays fans. Compared to Marlins fans, the average scores of escape and pride in place for Devil Rays fans were significantly higher than the scores for Marlins. In this dimension, each sub construct/factor has statistically significant difference between two teams.

Table 24

Differences in Brand Association Benefits Between Marlins and Devil Rays

Variable	M	SD	t	df	p
Escape			-2.358	496	.019
Marlins	5.406	.928			
Devil Rays	5.599	.876			
Fan Identification			3.763 ^a	377.72 ^a	.000
Marlins	5.889	.710			
Devil Rays	5.598	.948			
Peer Acceptance			3.005 ^a	412.05 ^a	.003
Marlins	5.616	.898			
Devil Rays	5.346	1.060			
Nostalgia			8.451 ^a	294.29 ^a	.000
Marlins	5.984	.673			
Devil Rays	5.149	1.319			
Pride in Place			-17.287 ^a	411.76 ^a	.000
Marlins	3.943	.932			
Devil Rays	5.559	1.100			

^aThe t and df were adjusted because the variances were not equal.

In the dimension of brand association attitudes, Table 25 shows that there were statistically significant differences on importance ($p=.000$), knowledge ($p=.000$), and affective reactions ($p=.000$) between Marlins and Devil Rays. Among Marlins fans, importance and affective reactions were higher than among Devil Rays fans. For Devil Rays, the average score of knowledge for Devil Rays fans was significantly higher than for Marlins fans.

Table 25

Differences in Brand Association Attitude Between Marlins and Devil Rays

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Importance			15.6 ^a	309.26 ^a	.000
Marlins	5.950	.663			
Devil Rays	4.537	1.191			
Knowledge			-17.974 ^a	325.99 ^a	.000
Marlins	3.506	.688			
Devil Rays	5.085	1.135			
Affective Reactions			11.250 ^a	327.65 ^a	.000
Marlins	6.009	.662			
Devil Rays	5.063	1.085			

^aThe *t* and *df* were adjusted because the variances were not equal.

Table 26 shows that Marlins fans were significantly different from Devil Rays fans when it came to brand loyalty ($P = .000$). Comparison of the two teams' means indicates that the average brand loyalty score for Marlins fans (5.65) was significantly higher than the score for the Devil Rays (5.34). The difference between the means is 0.31 points on a 7-point Likert scale.

Table 26

Difference of Brand Loyalty Between Marlins and Devil Rays

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Brand Loyalty			7.015 ^a	349.44 ^a	.000
Marlins	5.650	.372			
Devil Rays	5.343	.553			

^aThe *t* and *df* were adjusted because the variances were not equal.

Research Hypothesis 1

Brand association attribute factors are significant explanatory variables of brand loyalty to fans of winning and losing baseball teams.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association attribute factors (success, star player, head coach, management, logo design, stadium, product delivery, and tradition) and the dependent variable of brand loyalty. As shown in Table 27, the F value (18.764) for the regression equation was significant ($p=.000$). The adjusted R^2 illustrated the regression equation using the brand association attribute factors explained 22% (.222) of the variation in brand loyalty. To explain the individual predictors, the t value, which is the regression coefficient divided by the standard error (b/SE), was significant for success ($t= 12.60$, $p=.000$), star player ($t= 4.20$, $p=.000$), head coach ($t= 9.12$, $p=.038$), stadium ($t= -1.32$, $p=.001$), product delivery ($t= 3.23$, $p=.000$), and tradition ($t= -4.5$, $p=.002$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was success ($\beta=.188$), star player ($\beta=.381$), head coach ($\beta=.085$), stadium ($\beta=.144$), product delivery ($\beta=.179$), and tradition ($\beta=-.136$). In summary, success, star player, head coach, stadium, and product delivery were positively associated with brand loyalty. Tradition was negatively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the winning team Florida Marlins at Dolphin Stadium in Miami and the losing team Tampa Bay Devil Rays at Tropicana Field in St. Petersburg.

Table 27

Brand Association Attributes Dimension for Fans of Winning Marlins and Losing Devil Rays Baseball Teams

Explanatory Variable	<i>b</i>	SE	<i>t</i>	BETA (β)	<i>p</i>
(Constant)	3.62	.287			
Success	.099	.024	12.60	.188	.000
Star Player	.148	.016	4.20	.381	.000
Head Coach	.053	.025	9.12	.085	.038
Management	-.027	.026	-2.08	-.041	.309
Logo Design	-.029	.022	-1.01	-.055	.186
Stadium	.079	.025	1.32	.144	.001
Product Delivery	.096	.021	3.23	.179	.000
Tradition	-.020	.023	-4.50	-.136	.002

N= 498
F= 18.764 ***p*= .000** **R² = .235** **Adjusted R² = .222**

Brand association attribute factors are significant explanatory variables of brand loyalty to fans of winning baseball teams.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association attribute factors (success, star player, head coach, management, logo design, stadium, product delivery, and tradition) and the dependent variable of brand loyalty. As shown in Table 28, the *F* value (10.08) for the regression equation was significant ($p=.000$). The adjusted R^2 showed that the regression equation using the brand association attribute factors explained 20.4% (.204) of the variation in brand loyalty. To explain the individual predictors, the *t* value was significant for success ($t= 3.16, p=.002$), star player ($t= 5.40, p=.000$), product delivery ($t= 4.51, p=.000$), and tradition ($t= -2.07, p=.039$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was success ($\beta=.294$), star player ($\beta=.290$), product delivery ($\beta=.244$) and tradition ($\beta=-.116$). In summary, success, star player, and

product delivery were positively associated with brand loyalty. Tradition was negatively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the winning Florida Marlins at Dolphin Stadium in Miami.

Table 28

Brand Association Attributes Dimension for Marlins Fans

Explanatory Variable	b	SE	t	BETA (β)	p
(Constant)	4.35	.301			
Success	.125	.040	3.16	.294	.002
Star Player	.119	.022	5.40	.290	.000
Head Coach	-.130	.029	-0.46	-.025	.648
Management	-.034	.026	-1.31	-.071	.191
Logo Design	-.037	.026	-1.39	-.076	.165
Stadium	-.005	.039	-0.14	-.013	.892
Product Delivery	.100	.022	4.51	.244	.000
Tradition	-.054	.026	-2.07	-.116	.039

N= 285
 F= 10.080

$p = .000$ $R^2 = .226$ Adjusted $R^2 = .204$

Brand association attribute factors are significant explanatory variables of brand loyalty to fans of losing baseball teams.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association attribute factors (success, star player, head coach, management, logo design, stadium, product delivery, and tradition) and the dependent variable of brand loyalty. As shown in Table 29, the *F* value (10.96) for the regression equation was significant ($p=.000$). The adjusted R^2 indicated that the regression equation using the brand association attribute factors explained 27.3% (.273) of the variation in brand loyalty. To explain the individual predictors, the *t* value was significant for success ($t= 5.0, p=.000$), stadium ($t= 4.72, p=.000$), product delivery ($t= 3.50, p=.001$), and

tradition ($t = -3.81, p = .000$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was success ($\beta = .308$), stadium ($\beta = .281$), product delivery ($\beta = .217$), and tradition ($\beta = -.242$). In summary, success, stadium, and product delivery were positively, and tradition was negatively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the losing team Tampa Bay Devil Rays at Tropicana Field in St. Petersburg.

Table 29

Brand Association Attributes Dimension for Devil Rays Fans

Explanatory Variable	b	SE	t	BETA (β)	p
(Constant)	2.18	.518			
Success	.193	.037	4.992	.308	.000
Star Player	-.029	.042	-.688	-.046	.492
Head Coach	-.007	.044	-.168	-.011	.897
Management	-.050	.048	-1.007	-.063	.315
Logo Design	.00	.035	.027	.002	.978
Stadium	.186	.039	4.719	.281	.000
Product Delivery	.135	.039	3.499	.217	.001
Tradition	-.155	.041	-3.812	-.242	.000

N = 213
F = 10.96 **p = .000** **R² = .301** **Adjusted R² = .273**

Research Hypothesis 2

Brand association benefit factors are significant explanatory variables of brand loyalty to major league baseball fans.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association benefit factors (escape, fan identification, peer group acceptance, nostalgia, and pride in place) and the dependent variable of brand loyalty. As shown in Table 30, the *F* value (74.53) for the regression equation was

significant ($p=.000$). The adjusted R^2 illustrated the regression equation using the brand association benefit factors explained 43.1% (.431) of the variation in brand loyalty. To explain the individual predictors, the t value was significant for escape ($t= 8.02, p=.000$), fan identification ($t= 5.87, p=.000$), peer group acceptance ($t= 7.35, p=.038$), and nostalgia ($t= 11.14, p=.001$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was escape ($\beta=.275$), fan identification ($\beta=.209$), peer group acceptance ($\beta=.266$), and nostalgia ($\beta=.399$). In summary, escape, fan identification, peer group acceptance, and nostalgia were positively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the winning Florida Marlins at Dolphin Stadium in Miami and the losing Tampa Bay Devil Rays at Tropicana Field in St. Petersburg.

Table 30

Brand Association Benefits Dimension for Fans of Winning Marlins and Losing Devil Rays Baseball Teams

Explanatory Variable	b	SE	t	BETA (β)	p
(Constant)	2.19	.206			
Escape	.146	.018	8.02	.275	.000
Fan Identification	.121	.021	5.87	.209	.000
Peer Group Acceptance	.131	.018	7.35	.266	.000
Nostalgia	.178	.016	11.14	.399	.000
Pride in Place	.024	.013	1.79	.064	.075
N= 498					
F = 74.53		p= .000	R² = .431	Adjusted R² = .425	

Brand association benefit factors are significant explanatory variables of brand loyalty to fans of winning baseball teams.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association benefit factors (escape, fan identification, peer group acceptance, nostalgia, and pride in place) and the dependent variable of brand loyalty. As shown in Table 31, the F value (31.76) for the regression equation was significant ($p=.000$). The adjusted R^2 indicated the regression equation using the brand association benefit factors explained 35.1% (.351) of the variation in brand loyalty. To explain the individual predictors, the t value was significant for escape ($t= 7.6, p=.000$), fan identification ($t= 6.06, p=.000$), peer group acceptance ($t= 5.44, p=.038$), and nostalgia ($t= 4.73, p=.001$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was escape ($\beta=.367$), fan identification ($\beta=.294$), peer group acceptance ($\beta=.268$), and nostalgia ($\beta=.229$). In summary, escape, fan identification, peer group acceptance, and nostalgia were positively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the winning Florida Marlins at Dolphin Stadium in Miami.

Table 31

Brand Association Benefits Dimension for Marlins Fans

Explanatory Variable	<i>b</i>	SE	<i>t</i>	BETA (β)	<i>p</i>
(Constant)	2.48	.280			
Escape	.147	.019	7.60	.367	.000
Fan Identification	.154	.025	6.06	.294	.000
Peer Group Acceptance	.111	.020	5.44	.268	.000
Nostalgia	.126	.027	4.73	.229	.000
Pride in Place	.022	.020	1.12	.055	.263
N= 285					
F= 31.76		<i>p</i> = .000	$R^2 = .363$	Adjusted	$R^2 = .351$

Brand association benefit factors are significant explanatory variables of brand loyalty to fans of losing baseball teams.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association benefit factors (escape, fan identification, peer group acceptance, nostalgia, and pride in place) and the dependent variable of brand loyalty. As shown in Table 32, the F value (39.97) for the regression equation was significant ($p=.000$). The adjusted R^2 indicated the regression equation using the brand association benefit factors explained 47.9% (.479) of the variation in brand loyalty. To explain the individual predictors, the t value was significant for escape ($t= 6.05, p=.000$), fan identification ($t= 3.42, p=.000$), peer group acceptance ($t= 5.49, p=.038$), nostalgia ($t= 5.7, p=.001$), and pride in place ($t= 5.53, p=.000$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was escape ($\beta=.306$), fan identification ($\beta=.181$), peer group acceptance ($\beta=.297$), nostalgia ($\beta=.307$), and pride in place ($\beta=.290$). In summary, escape, fan identification, peer group acceptance, nostalgia, and pride in place were positively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the losing Tampa Bay Devil Rays at Tropicana Field in St. Petersburg.

Table 32

Brand Association Benefits Dimension for Devil Rays Fans

Explanatory Variable	b	SE	t	BETA (β)	p
(Constant)	1.37	.332			
Escape	.193	.032	6.05	.306	.000
Fan Identification	.106	.031	3.42	.181	.000
Peer Group Acceptance	.155	.028	5.49	.297	.000
Nostalgia	.129	.023	5.70	.307	.000
Pride in Place	.146	.026	5.53	.290	.000
N= 213					
F= 39.97					
		p= .000	R² = .491	Adjusted	
				R² = .479	

Research Hypothesis 3

Brand association attitude factors are significant explanatory variables of brand loyalty to major league baseball fans.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association attitude factors (importance, knowledge, and affective reactions) and the dependent variable of brand loyalty. As shown in Table 33, the *F* value (48.26) for the regression equation was significant ($p=.000$). The adjusted R^2 presented the regression equation using the brand association attitude factors explained 22.2% (.222) of the variation in brand loyalty. To explain the individual predictors, the *t* value was significant for affective reactions ($t= 11.07$, $p=.000$). In addition, based on the values of the beta (β) coefficients, the relative importance of affective reactions was .468. In summary, only the factor of affective reaction in this dimension was positively associated with brand loyalty. This was a significant explanatory variable/factor of brand loyalty, measured by the winning Florida Marlins at Dolphin Stadium in Miami and the losing Tampa Bay Devil Rays at Tropicana Field in St. Petersburg.

Table 33

Brand Association Attitudes Dimension for Fans of Winning Marlins and Losing Devil Rays Baseball Teams

Explanatory Variable	<i>b</i>	SE	<i>t</i>	BETA (β)	<i>p</i>
(Constant)	4.29	.197			
Importance	-.002	.018	-.136	-.006	.892
Knowledge	-.010	.018	-.529	-.024	.597
Affective Reactions	.229	.021	11.067	.468	.000
N= 498					
F= 48.26		p= .000	R² = .227	Adjusted R² = .222	

Brand association attitude factors are significant explanatory variables of brand loyalty to fans of winning baseball teams.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association attitude factors (importance, knowledge, and affective reactions) and the dependent variable of brand loyalty. As shown in Table 34, the *F* value (20.01) for the regression equation was significant ($p=.000$). The adjusted R^2 indicated the regression equation using the brand association attitude factors explained 17.6% (.176) of the variation in brand loyalty. To explain the individual predictors, the *t* value was significant for importance ($t= 2.68$, $p=.008$), and affective reactions ($t= 7.16$, $p=.000$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was affective reactions ($\beta=.388$). In summary, affective reactions were positively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the winning Florida Marlins at Dolphin Stadium in Miami.

Table 34

Brand Association Attitudes Dimension for Marlins Fans

Explanatory Variable	b	SE	t	BETA (β)	p
(Constant)	3.83	.270			
Importance	.081	.030	2.68	.145	.108
Knowledge	.006	.029	.221	.012	.825
Affective Reactions	.218	.030	7.16	.388	.000
N= 295					
F= 20.01		p= .000	R² = .176	Adjusted R² = .167	

Brand association attitude factors are significant explanatory variables of brand loyalty to fans of losing baseball teams.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association attitude factors (importance, knowledge, and affective reactions) and the dependent variable of brand loyalty. As shown in Table 35, the *F* value (17.37) for the regression equation was significant ($p=.000$). The adjusted R^2 presented the regression equation using the brand association attitude factors explained 18.8% (.188) of the variation in brand loyalty. To explain the individual predictors, the *t* value was significant for importance ($t= 3.38$, $p=.001$), and affective reactions ($t= 4.99$, $p=.000$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was affective reactions ($\beta=.326$). In summary, factor of affective reactions was positively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the losing Tampa Bay Devil Rays in Tropicana Field at St. Petersburg.

Table 35

Brand Association Attitudes Dimension for Devil Rays Fans

Explanatory Variable	<i>b</i>	SE	<i>t</i>	BETA (β)	<i>p</i>
(Constant)	3.79	.301			
Important	-.102	.030	- 3.38	-.220	.077
Knowledge	.034	.030	1.12	.070	.264
Affective Reactions	.166	.033	4.99	.326	.000
N= 213					
F= 17.37		<i>p</i>= .000	R² = .20	Adjusted	
				R² = .188	

Research Hypothesis 4

Brand association attribute, benefit, and attitude factors are significant explanatory variables of brand loyalty to major league baseball fans.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association attribute, benefit, and attitude factors (success, star player, head coach, management, logo design, stadium, product delivery, tradition, escape, fan identification, peer group acceptance, nostalgia, pride in place, importance, knowledge, and affective reactions) and the dependent variable of brand loyalty. As shown in Table 36, the *F* value (56.85) for the regression equation was significant ($p=.000$). The adjusted R^2 indicated the regression equation using the 16 brand association factors explained 54.3% (.543) of the variation in brand loyalty. To explain the individual predictors, the *t* value was significant for success ($t= 4.92, p=.000$), star player ($t= 6.13, p=.000$), stadium ($t= 3.94, p=.000$), product delivery ($t= 7.92, p=.000$), tradition ($t= -1.31, p=.041$), escape ($t= 9.12, p=.000$), fan identification ($t= 6.27, p=.000$), peer group acceptance ($t= 7.73, p=.000$), nostalgia ($t= 11.03, p=.000$), pride in place ($t= 5.45, p=.000$), and affective reactions ($t= 8.75, p=.000$). In addition, based on the

values of the beta (β) coefficients, the relative importance of these predictors was success ($\beta=.151$), star player ($\beta=.224$), stadium ($\beta=.121$), product delivery ($\beta=.215$), tradition ($\beta=-.038$), escape ($\beta=.251$), fan identification ($\beta=.179$), peer group acceptance ($\beta=.226$), nostalgia ($\beta=.332$), pride in place ($\beta=.196$), and affective reactions ($\beta=.288$). In summary, success, star player, stadium, product delivery, escape, fan identification, peer group acceptance, nostalgia, pride in place, and affective reactions were positively associated with brand loyalty. Tradition was negatively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the winning Florida Marlins at Dolphin Stadium in Miami and losing Tampa Bay Devil Rays at Tropicana Field in St. Petersburg.

Table 36

*Brand Association Factors for Fans of Winning Marlins and Losing Devil Rays Baseball**Teams*

Explanatory Variable	b	SE	t	BETA (β)	p
(Constant)	-.080	.296			
Success	.080	.016	4.92	.151	.000
Star Player	.087	.014	6.13	.224	.000
Head Coach	-.020	.018	-1.11	-.032	.267
Management	-.019	.018	-1.08	-.030	.280
Logo Design	-.014	.016	-0.93	-.027	.353
Stadium	.067	.017	3.94	.121	.000
Product Delivery	.115	.015	7.92	.215	.000
Tradition	-.022	.016	-1.31	-.038	.041
Escape	.133	.015	9.12	.251	.000
Fan Identification	.104	.017	6.27	.179	.000
Peer Group Acceptance	.111	.014	7.73	.226	.000
Nostalgia	.148	.013	11.03	.332	.000
Pride in Place	.074	.014	5.45	.196	.000
Importance	.011	.014	0.81	.027	.420
Knowledge	.017	.014	1.24	.043	.216
Affective Reactions	.141	.016	8.75	.288	.000

N= 498

F= 56.85

p= .000

R²= .554Adjusted
R²= .543

Brand association attribute, benefit, and attitude factors are significant explanatory variables of brand loyalty to fans of winning baseball teams.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association attribute, benefit, and attitude factors (success, star player, head coach, management, logo design, stadium, product delivery, tradition, escape, fan identification, peer group acceptance, nostalgia, pride in place, importance, knowledge, and affective reactions) and the dependent variable of brand loyalty. As shown in Table 37, the *F* value (45.70) for the regression equation was significant ($p=.000$). The adjusted R² indicated the regression equation using the 16 brand

association factors explained 61.6% (.616) of the variation in brand loyalty. To explain the individual predictors, the t value was significant for success ($t= 4.38, p=.000$), star player ($t= 8.82, p=.000$), head coach ($t= 2.28, p=.023$), management ($t= -2.10, p=.037$), product delivery ($t= 9.21, p=.000$), tradition ($t= -2.03, p=.043$), escape ($t= 10.58, p=.000$), fan identification ($t= 7.28, p=.000$), peer group acceptance ($t= 9.28, p=.000$), nostalgia ($t= 7.80, p=.000$), and affective reactions ($t= 8.50, p=.000$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was success ($\beta=.248$), star player ($\beta=.299$), head coach ($\beta=.078$), management ($\beta=-.070$), product delivery ($\beta=.304$), tradition ($\beta=-.070$), escape ($\beta=.349$), fan identification ($\beta=.240$), peer group acceptance ($\beta=.315$), nostalgia ($\beta=.259$), and affective reactions ($\beta=.288$). In summary, success, star player, head coach, product delivery, escape, fan identification, peer group acceptance, nostalgia, and affective reactions were positively and tradition was negatively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the winning Florida Marlins at Dolphin Stadium in Miami.

Table 37

Brand Association Factors for Marlins Fans

Explanatory Variable	b	SE	t	BETA (β)	p
(Constant)	-.776	.322			
Success	.105	.024	4.38	.248	.000
Star Player	.122	.014	8.82	.299	.000
Head Coach	.041	.018	2.28	.078	.023
Management	-.034	.016	-2.10	-.070	.037
Logo Design	.002	.016	0.14	.005	.890
Stadium	.002	.024	0.10	.006	.918
Product Delivery	.124	.014	9.21	.304	.000
Tradition	-.033	.016	-2.03	-.070	.043
Escape	.140	.013	10.58	.349	.000
Fan Identification	.125	.017	7.28	.240	.000
Peer Group Acceptance	.130	.014	9.28	.315	.000
Nostalgia	.143	.018	7.80	.259	.000
Pride in Place	.003	.014	0.205	.007	.838
Important	.091	.018	4.92	.162	.165
Knowledge	-.007	.018	-0.41	-.014	.680
Affective Reactions	.162	.019	8.50	.288	.000
N= 285					
F= 45.70		p= .000	R² = .632	Adjusted R² = .616	

Brand association attribute, benefit, and attitude factors are significant explanatory variables of brand loyalty to fans of losing baseball teams.

Multiple linear regression analysis was used to explore the explanatory relationship between brand association attribute, benefit, and attitude factors (success, star player, head coach, management, logo design, stadium, product delivery, tradition, escape, fan identification, peer group acceptance, nostalgia, pride in place, importance, knowledge, and affective reactions) and the dependent variable of brand loyalty. As shown in Table 38, the *F* value (31.14) for the regression equation was significant ($p=.000$). The adjusted R^2 showed the regression equation using the 16 brand association factors explained 59.5% (.595) of the variation in brand loyalty. To explain the

individual predictors, the t value was significant for success ($t= 6.26, p=.000$), stadium ($t= 5.05, p=.000$), product delivery ($t= 5.24, p=.000$), tradition ($t= -1.14, p=.005$), escape ($t= 5.00, p=.000$), fan identification ($t= 4.77, p=.000$), peer group acceptance ($t= 4.39, p=.000$), nostalgia ($t= 4.71, p=.000$), pride in place ($t= 6.32, p=.000$) and affective reactions ($t= 5.74, p=.000$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was success ($\beta=.264$), stadium ($\beta=.204$), product delivery ($\beta=.219$), tradition ($\beta=-.05$), escape ($\beta=.202$), fan identification ($\beta=.202$), peer group acceptance ($\beta=.194$), nostalgia ($\beta=.218$), pride in place ($\beta=.299$) and affective reactions ($\beta=.271$). In summary, success, stadium, product delivery, escape, fan identification, peer group acceptance, nostalgia, pride in place, and affective reactions were positively associated with brand loyalty. Tradition was negatively associated with brand loyalty. These were significant explanatory variables of brand loyalty, measured by the losing Tampa Bay Devil Rays in Tropicana Field at St. Petersburg.

Table 38

Brand Association Factors for Devil Rays Fans

Explanatory Variable	b	SE	t	BETA (β)	p
(Constant)	-.835	.468			
Success	.156	.025	6.26	.264	.000
Star Player	-.019	.029	-0.68	-.031	.498
Head Coach	-.044	.030	-1.46	-.065	.146
Management	-.009	.031	-0.30	-.012	.767
Logo Design	.001	.025	0.04	.002	.968
Stadium	.135	.027	5.05	.204	.000
Product Delivery	.137	.026	5.24	.219	.000
Tradition	-.032	.028	-1.14	-.050	.005
Escape	.128	.026	5.00	.202	.000
Fan Identification	.118	.025	4.77	.202	.000
Peer Group Acceptance	.101	.023	4.39	.194	.000
Nostalgia	.091	.019	4.71	.218	.000
Pride in Place	.150	.024	6.32	.299	.000
Importance	.035	.021	1.65	.076	.101
Knowledge	.033	.021	1.55	.067	.124
Affective Reactions	.138	.024	5.74	.271	.000
N= 213					
F= 31.14		p= .000	R² = .618	Adjusted	
				R² = .595	

Research Hypothesis 5

Brand association attribute, benefit and attitude factors and fan characteristics are significant explanatory variables of brand loyalty to Major League Baseball fans.

Multiple linear regression analysis was used to explore the explanatory relationship among fan characteristics (gender, marital status, age, education level, annual personal income, estimated travel time to games), and brand association factors (success, star player, head coach, management, logo design, stadium, product delivery, tradition, escape, fan identification, peer group acceptance, nostalgia, pride in place, importance, knowledge, and affective reactions), and the dependent variable of brand loyalty. As shown in Table 39, the *F* value (43.94) for the regression equation was significant

($p=.000$). The adjusted R^2 presented the regression equation using the brand association attribute factors explained 55.5% (.555) of the variation in brand loyalty. To explain the individual predictors, the t value was significant for marital status ($t= 2.88, p=.004$), annual personal income ($t= -2.89, p=.004$), estimate travel time to games ($t= 2.07, p=.039$), success ($t= 5.22, p=.000$), star player ($t= 5.36, p=.000$), stadium ($t= 4.16, p=.001$), product delivery ($t= 8.26, p=.000$), tradition ($t= -3.13, p=.006$), escape ($t= 9.13, p=.001$), fan identification ($t=6.44, p=.000$), peer group acceptance ($t= 8.11, p=.000$), nostalgia ($t= 11.01, p=.000$), pride in place ($t= 5.14, p=.000$), and affective reactions ($t= 8.62, p=.000$). In addition, based on the values of the beta (β) coefficients, the relative importance of these predictors was marital status ($\beta=.080$), annual personal income ($\beta=-.082$), estimate travel time to games ($\beta=.057$), success ($\beta=.157$), star player ($\beta=.196$), stadium ($\beta=.126$), product delivery ($\beta=.223$), tradition ($\beta=-.132$), escape ($\beta=.249$), fan identification ($\beta=.184$), peer group acceptance ($\beta=.236$), nostalgia ($\beta=.328$), pride in place ($\beta=.185$), and affective reactions ($\beta=.283$). In summary, marital status, estimated travel time to games, success, star player, stadium, product delivery, escape, fan identification, peer group acceptance, nostalgia, pride in place, and affective reactions were positively associated with brand loyalty. However, annual personal income and tradition were negatively associated with brand loyalty. These were significant explanatory variables of brand loyalty for both the winning and the losing team.

Table 39

Brand Association Attribute, Benefit, and Attitude Dimensions and Fan Characteristics for Marlins and Devil Rays Fans

Explanatory Variable	<i>b</i>	SE	<i>t</i>	BETA (β)	<i>p</i>
(Constant)	-.180	.308			
Gender	-.012	.027	-0.43	-.012	.664
Marital Status	.048	.017	2.88	.080	.004
Age	-.007	.012	-0.57	-.016	.572
Education Level	.023	.014	1.67	.047	.096
Annual Personal Income	-.036	.012	-2.89	-.082	.004
Estimate Travel Time to Games	.038	.018	2.07	.057	.039
Success	.083	.016	5.22	.157	.000
Star Player	.076	.014	5.36	.196	.000
Head Coach	-.018	.018	-1.02	-.029	.308
Management	-.024	.018	-1.35	-.037	.178
Logo Design	-.008	.015	-0.49	-.014	.621
Stadium	.069	.017	4.16	.126	.000
Product Delivery	.120	.015	8.26	.223	.000
Tradition	-.068	.016	-3.13	-.132	.006
Escape	.132	.014	9.13	.249	.000
Fan Identification	.107	.017	6.44	.184	.000
Peer Group Acceptance	.116	.014	8.11	.236	.000
Nostalgia	.146	.013	11.01	.328	.000
Pride in Place	.069	.013	5.14	.185	.000
Importance	.014	.014	0.98	.033	.329
Knowledge	.017	.014	1.20	.041	.230
Affective Reactions	.139	.016	8.62	.283	.000

N= 498

F= 43.94

**$p= .000$ $R^2= .571$ Adjust
 $R^2= .555$**

Chapter IV presented the statistic results. First, internal consistency reliability was estimated and construct validity was established in this chapter. After confirming the instrument used in this study was reliable and valid, the next step was to answer the two research questions and to test the five hypotheses in this study. The results were well presented from Table 20 to Table 39. Based on the statistic results, the following chapter presented and interpreted the findings.

CHAPTER V

DISCUSSION

A description with interpretations, practical implications, conclusions, research limitations and recommendations for future study are described in this chapter. To identify the significant factors that may influence fans brand loyalty and explore the critical differences of the 16 factors between a winning and a losing team, the first section presents the findings of this study, interprets the research findings that are related to the current research literature, and explains the findings. Based on the research findings and interpretations, the following section describes the practical implementation for sports managers, sports marketers, sports sponsors, and scholars in the sports field. Conclusions for this study, research limitations, and recommendations for future study are presented in the final section.

Interpretations

Customers' "brand loyalty" has been explored for decades. However, research in the area of sports fans' brand loyalty is scant. The Team Association Questionnaire was successfully tested by Gladden and Funk (2001, 2002). However, the instrument is new and lacks specific application to the sports field. This study was the first to explore the relationship among brand association attributes, benefits, attitudes factors, and brand loyalty to a winning team and a losing team. The purpose of this non-experimental, explanatory, and casual comparative study using independent samples *t* test and multiple linear regression was to validate the team association model applied to Major League Baseball fans, and to compare the factors influencing fans' brand loyalty to winning and losing teams. Two research questions were answered and five hypotheses were tested for

this study.

For both teams, the majority of fans were male. Regarding marital status, approximately 50% of Marlins' fans were married and the other 50% were single or living with a partner or a significant other. More than 40% of Devil Rays' fans were married, and followed by "living with partner or significant other" with a result of 30%. The majority of Marlins' fans were between 25 and 54 years of age. The majority of Devil Rays' fans were between 25 and 44 years of age. For educational level, 35% of Marlins fans have only graduated from high school and 50% of Marlins' fans have graduated from college. For Devil Rays, 30% of fans have only graduated from high school and 40% of fans have graduated from college. Both teams' fans indicated that their annual personal income was in the range of \$30,000 to \$44,999 US dollars. This means that the participants of this study are considered "middle class", based on Hollingshead's ISP categories (as cited in Miller, & Salkind, 2002). Devil Rays' fans took less time traveling to games than Marlins' fans. Nearly 50% of Marlins' fans took 31 to 60 minutes traveling to games. More than 50 % of Devil Rays' fans took 15 to 30 minutes traveling to games. Demographic findings about gender, marital status, age, education level, annual personal income, and estimated travel time to games were consistent with the study conducted by Lu (2002), who surveyed fans attending Minor League Baseball games.

For Research Question 2, there were statistically significant differences in the following factors: annual personal income, estimated travel time to games, success, star player, head coach, logo design, stadium, tradition, escape, fan identification, peer group

acceptance, nostalgia, pride in place, importance, knowledge, affective reactions and brand loyalty.

As two research questions were answered, the interpretations of the five hypotheses were as follows.

Brand Association Attributes

Brand association attributes are “the descriptive features that characterize a product or service” (Keller, 1993, p. 4). For sports fans, we can call it the “physical features” of a sport team. In this study, eight brand association attribute factors were identified: team success, star player, head coach, team management, logo design, facilities of the stadium, product delivery, and team tradition.

Among these eight brand association attribute factors, the results indicated that the F-value was 18.764 ($p < .01$) for MLB teams. The adjusted R-squared showed that the brand association attribute dimension explained 22% of the variance in brand loyalty in which “success”, “star player”, “head coach”, “stadium”, “product delivery” have a positive, and “tradition” has a negative relationship with brand loyalty on MLB teams. The findings were consistent with Porter et al. (1982) for “success”, consistent with Fisher et al. (1998) for “star player”, consistent with Gladden et al. (1999) for “head coach”, consistent with Trujillo et al. (1994), Wakefield et al. (1995), Gladden et al. (1998) for “stadium”, consistent with Marcum et al. (1985), Wann (1995) as product delivery, consistent with the study of Gladden et al. (2001), Putler et al. (1999), and Kolbe et al. (2000) for “tradition”.

The results indicated that the F-value was 10.080 ($p < .01$) with the winning team. The adjusted R-squared showed that this dimension explained 20.4% of the variance in

brand loyalty on winning team in which “success”, “star player”, and “product delivery” have a positive, and “tradition” has a negative relationship with brand loyalty. This indicated that “success”, “star player”, “product delivery”, and “tradition” were significant explanatory factors to brand loyalty of fans of winning teams. The findings were consistent with Porter et al. (1982) for “success”, consistent with Fisher et al. (1998) for “star player”, consistent with Marcum et al. (1985), Wann (1995) for “product delivery”, and consistent with the study of Putler et al. (1999), and Kolbe et al. (2000) for “tradition”.

For the losing team, the results indicated that the F-value was 10.96 ($p < .01$). The adjusted R-squared showed that this dimension explained 27.3% of the variance in brand loyalty to the losing team in which “success”, “stadium”, “product delivery”, have a positive, and “tradition” has a negative relationship with brand loyalty. The findings were consistent with the study of Porter et al. (1982) for “success”, consistent with Trujillo et al. (1994), Wakefield et al. (1995), Gladden et al. (1998) for “stadium”, consistent with Marcum et al. (1985), Wann (1995) for “product delivery”; and consistent with Kolbe et al. (2000), and Putler, et al. (1999) for “team tradition”.

In this study, brand association attributes were good predictors of fans’ loyalty. In this dimension, “success” and “product delivery” are essential predictive factors for both teams. Not surprisingly, people like to identify with a winner (Gladden & Funk, 2001). Researchers found that “fans were more likely to display the insignia of their team on their clothing following a victory than following a loss” (End, Dietz-Uhler, Demalalos, Grantz, & Biviano, 2003, p. 140).

Product delivery is “the ability of the team to satisfy a consumer’s need for entertainment” (Gladden & Funk, 2001). Researchers found that fans exhibited a high interest in participating in sports because of their psychosocial desire to experience team offensive and defensive outputs (Pan, Gabert, McGaugh & Branvold, 1997).

The factor of “star player” predicted brand loyalty to the winning team, but not to the losing team. Having star players is a major contributor to team success. Therefore, back to the BIRGing (Basking-in-Reflected-Glory) theory, fans are more likely to identify with the winning team, and star players bring team success. That could be used to explain why a star player could be used to explain the winning team, not with the losing team.

However, the “stadium” factor predicted brand loyalty to the losing team but not to the winning team. The winning Florida Marlins has no hometown stadium. They share the stadium by the lease contract with the Dolphins football team, and owned by the Dolphins. Therefore, Marlins fans may have no identification or association with this stadium. Tropicana Field does not belong to the Tampa Bay Devil Rays; it belongs to the City of St. Petersburg, Florida. However, St. Petersburg built the stadium to lure a MLB team to the city (Ballparks, 2006). Thus, Tropicana Field is completely under private management by the Devil Rays. Therefore, Tropicana Field seems like a hometown baseball stadium. This may explain why the factor of “stadium” can be used to explain loyalty to the losing team but is not the factor in explaining loyalty to the winning team.

For the factor of “tradition”, the findings showed that tradition negatively related to fans’ brand loyalty on both teams. This means that the higher level of loyalty of fans, the less important team tradition is. The findings were reasonable that both winning and

losing teams are relatively new teams with 15 years team history. Thus, as loyal fans of these two winning and losing teams, “tradition” may not an important factor for them.

Brand Association Benefits

Brand association benefits are “the personal value consumers attach to the product or service attributes” (Keller, 1993, p. 4). For sports fans, this may be called “psychological attachment” to a team. In this study, five brand association benefit factors were identified: escape, fan identification, peer group acceptance, nostalgia, and pride in place.

Among five brand association benefit factors, the results indicated that the F-value was 74.53 ($p < .01$) for MLB teams. The adjusted R-squared showed that the brand association benefit dimension explained 42.5% of the variance in brand loyalty in which “escape”, “fan identification”, “peer group acceptance”, and “nostalgia” have a positive relationship with brand loyalty on MLB teams. The findings were consistent with Wann (1995), Wann et al. (2004) for “escape”, consistent with Mael et al. (1992), Sutton, et al. (1997), Bristow et al. (2001) for “fan identification”, consistent with Wakefield (1995) for “peer group acceptance”, consistent with Holbrook (1993), and Bristow et al. (2001) for “nostalgia”.

For the winning team, the results indicated that the F-value was 31.76 ($p < .01$). The adjusted R-squared showed that this dimension explained 35.1% of the variance in brand loyalty for the winning team in which “escape”, “fan identification”, “peer group acceptance”, and “nostalgia” have positive relationships with brand loyalty. The findings were consistent with Wann (1995), Wann et al. (2004) for “escape”, consistent with Mael et al. (1992), Sutton et al. (1997), Bristow et al. (2001) for “fan identification”, consistent

with Wakefield (1995) for “peer group acceptance”, consistent with Holbrook (1993), and with Bristow et al. (2001) for “nostalgia”.

For the losing team, the results indicated that the F-value was 39.97 ($P < .01$). The adjusted R-squared showed that this dimension explained 47.9% of the variance in brand loyalty to the losing team in which “escape”, “fan identification”, “peer group acceptance”, “nostalgia”, and “pride in place” have positive relationships with brand loyalty. The findings were consistent with Wann (1995), Wann et al. (2004) for “escape”, consistent with Mael et al. (1992), Sutton et al. (1997), Bristow et al. (2001) for “fan identification”, consistent with Wakefield (1995) for “peer group acceptance”, consistent with Holbrook (1993), Bristow et al. (2001) for “nostalgia”, consistent with Trujillo et al. (1994) and Zhang et al. (1996) for “pride in place”.

In this dimension, brand association benefits strongly predict brand loyalty to both the winning and the losing team. “Escape”, “fan identification”, “peer group acceptance” and “nostalgia” are the four benefit factors mainly influencing loyalty for these two teams.

Researchers state that “fans use sport to escape boredom and monotony (under-stimulation) and serves as a diversion from stress and anxiety (over-stimulation)” (Wann, Allen & Rochelle, 2004, p. 104). In this study, the researcher found that whether the team is winning or losing, competitions help fans to escape from their daily routine. Wenner and Gantz reported that “viewing sports may offer opportunities to relax, reduce tensions, and even escape” (1989, p. 242). This could explain why this factor strongly explains loyalty to both teams.

“Fan identification” is another important factor in exploring fans’ behavior. Fan identification is “a spectator involvement with and psychological connection to a sport

team” (Wann & Schrader, 2000, p. 160). Fisher and Wakefield (1998) noted that the stronger the relationship between the individual and the group, the more willing the individual is to support the group. Although many studies have shown that individual fans are more likely to identify with winning teams, they also identify with the losing team if the team brings them a psychosocial orientation. “The Chicago Cubs continue to sell out games at Wrigley Field despite the fact that the team has not won a pennant in more than 50 years” (Fisher & Wakefield, 1998, p. 24). This could be why “fan identification” predicted fans’ loyalty to both the winning and losing team.

Nostalgia is “the ability of the sport team to conjure up feelings from the past and fond memories” (Gladden & Funk, 2001, p. 73). People associate with something based on cumulative memories. “Habit and history with the brand is based in part on the concept of intergenerational influence by family members” (Bristow & Sebastian, 2001, p. 259). Therefore, no matter whether the team is winning or losing, nostalgia is a significant influence on fans’ loyalty.

In addition, “peer group acceptance” influences fans’ behavior. According to Tajfel and Turner (1979), social identity comprises four propositions. First, people classify stimuli from their surroundings to simplify information and to understand their environment. Second, people identify with the group to which they belong by social classification. Third, people compare the characteristics of their own group with those of other groups. Finally, people consider the traits of their own group as more positive and applicable than the traits of other groups (Lo, 2001). Researchers have found that “individuals tend to classify themselves and others into various social groups, such as organizational membership, gender, and age cohort” (Mael & Ashforth, 1992, p. 104).

Therefore, fans want to identify with their peer group, and may be influenced in their loyalty by the group. This could happen among fans of either winning or losing teams.

Only “pride in place” can explain fans’ loyalty to the losing team. The results indicated that people in the city of St. Petersburg identify more with their city than with the Miami area. According to the demographic profile reported by the Miami-Dade County, Miami is home to a large Spanish immigrant population (57.3%) and tourists from across the United States (Williams, 2000). Therefore, they may not exhibit a strong sense of local identification. This could explain the results of this study.

Brand Association Attitudes

Brand association attitudes are cumulative evaluations of objects, issues, or experiences. Funk and Pastore stated that attitudes are “a general and enduring positive or negative feeling about some person, object or issue that has the ability to direct behaviors” (2000, p. 128). For sports fans, we can also call it “subjective cognizance and beliefs” for a sport team. In this study, three brand association attitude factors were identified: importance, knowledge, and affective reactions.

Among three brand association attitude factors, the results indicated that the F-value was 48.26 ($p < .01$) for MLB teams. The adjusted R-squared showed that the brand association attitude dimension explained 22.2% of the variance in brand loyalty. Only “affective reactions” has a positive relationship with brand loyalty on MLB teams. The findings of “affective reactions” were consistent with the findings of Bassili (1996), Funk et al. (2000), and Gladden et al. (2002).

For the winning team, the results revealed that the F-value was 20.01 ($p < .01$). The adjusted R-square showed that this dimension explained 16.7% of the variance in

brand loyalty on winning team, in which affective reactions has a positive relationship to brand loyalty. The findings were consistent with the study of Bassili (1996), Funk et al. (2000), Gladden et al. (2002) regarding “affective reactions”.

For the losing team, the results indicated that the F-value was 17.37 ($p < .01$). The adjusted R-square showed that this dimension explained 18.8% of the variance in brand loyalty to the losing team, in which “affective reactions” has a positive relationship with brand loyalty. The findings were consistent with Bassili (1996), Funk et al. (2000) and Gladden et al. (2002) for “affective reactions”.

In the prior study, the researcher found that attitude properties could be categorized by attitudinal aspects, cognitive structure, and subjective beliefs (Krosnick & Petty, 1995). In the sport setting, Funk and Pastore (2000) illustrated that nine attitude properties would influence brand loyalty in professional sports. In the brand association attitude, reactive affections predicted fans’ brand loyalty to both the winning and losing team in this study. “Affective reactions reflect an individual’s feelings about a team” (Gladden & Funk, 2002, p. 61). Based on this definition, the result of this study presented that the more positive an individual’s feelings about a team, the more loyal the fans were. This demonstrates that whether a team is winning or losing, fans become loyal, the necessary path is the positive feelings/attitudes formed towards the team.

Brand Associations

Brand association is “anything linked in memory to a brand” (Aaker, 1991, p. 109). From a customer’s perspective, brand association can be categorized in terms of attributes, benefits, and attitudes (Keller, 1993). Gladden and Funk (2002) sorted 16 influencing factors by the three dimensions. Success, star player, head coach,

management, logo design, stadium, product delivery, and tradition are attributes factors. Escape, fan identification, peer group acceptance, nostalgia, and pride in place are benefits factors. Importance, knowledge, and affective reactions are attitude factors.

Among 16 brand association factors, the results indicated that the F-value was 56.85 ($p < .01$) for MLB teams. The adjusted R-squared showed that the three brand association dimensions explained 54.3% of the variance in brand loyalty in which “success”, “star player”, “stadium”, “product delivery”, “escape”, “fan identification”, “peer group acceptance”, “nostalgia”, “pride in place”, and “affective reactions” have a positive relationship, and “tradition” has a negative relationship with brand loyalty on MLB teams.

For the winning team, the results indicated that the F-value was 45.70 ($p < .01$). The adjusted R-squared showed that this dimension explained 63.2% of the variance in brand loyalty for the winning team in which “success”, “star player”, “head coach”, “management”, “product delivery”, “escape”, “fan identification”, “peer group acceptance”, “nostalgia”, and “affective reactions” have a positive relationship, and “tradition” has a negative relationship with brand loyalty.

For the losing team, the results indicated that the F-value was 31.14 ($p < .01$). The adjusted R-squared showed that this dimension explained 59.5% of the variance in brand loyalty for the losing team in which “success”, “stadium”, “product delivery”, “escape”, “fan identification”, “peer group acceptance”, “nostalgia”, “pride in place”, and “affective reactions” have a positive relationship, and “tradition” has a negative relationship with brand loyalty.

Combining the three dimensions of attributes, benefits, and attitudes to explain fans loyalty, the results indicated that more than 50% of variance can be explained by fans' loyalty to both the winning and losing team. The findings confirmed Gladden and Funk's findings that "theorized elements of brand equity (brand associations) can actually provide information about the long-term performance (brand loyalty) of a brand" (2001, p. 82). This study also found that Keller's (1993) conceptualization of brand associations could be applied to US professional baseball teams.

Fan Characteristics and Brand Association Factors on MLB Teams

Among six fan characteristics and 16 brand association factors, the results indicated that the F-value was 43.94 ($p < .01$) for MLB teams. The adjusted R-squared showed that the 22 variables explained 55.5 % of the variance that occurs in brand loyalty, in which "marital status", "estimated travel time to games", "success", "star player", "stadium", "product delivery", "escape", "fan identification", "peer group acceptance", "nostalgia", "pride in place", and "affective reactions" have a positive relationship, and "annual personal income" and "tradition" have a negative relationship to brand loyalty for MLB teams.

When fan characteristics and brand association factors are incorporated into the regression model, the findings showed that 55.5% of variance can be explained on fans' loyalty to MLB teams. This illustrated that there were no significant differences between Hypothesis 4 and 5. After inserting fan characteristics into the regression model, the adjusted-R square value slightly increases from 54.3% to 55.5% in explaining fans' loyalty. This could mean that fans' characteristics may not be the main influence on fans' loyalty. Nevertheless, for "personal annual income", the findings exhibited that the

greater the level of fans' brand loyalty, the less personal annual income they had. This indicated that MLB fans who belong to the blue collar class or middle class could be more loyal than the white collar class. This finding could be provided as a reference for the Major League Baseball team management to design attractive pricing strategies. Table 40 illustrates the Adjusted R-Square value of each hypothesis.

Table 40

Adjusted R-Squared Value of Hypotheses

	Adjusted R ² Value		
	MLB Teams/ Marlins and Devi Rays	Winning Team/ Marlins	Losing Team/ Devil Rays
Attributes	.222	.204	.273
Benefits	.425	.351	.479
Attitudes	.222	.167	.188
Attributes, Benefits, Attitudes	.543	.616	.595
Attributes, Benefits, Attitudes, Fan Characteristics	.555		

Practical Implications

Since brand association attributes play a significant role in fans' loyalty, team management could place greater emphasis on molding team players into sport idols, improving the facilities of stadium, and increasing benefits for the fans that attend ball games, as the study found them to be significant explanatory factors of loyalty among fans of winning and losing teams.

Team management could place greater emphasis on public service to strengthen community relationships, participate in charitable activities, hold autograph sessions for

players, and establish a reward system for fans, as the study found these to be significant factors in accounting for loyalty to winning and losing teams.

The dimension of brand association attitudes does not strongly explain brand loyalty to both winning and losing teams, compared to the dimensions of attributes and benefits. The strength of relationship is medium-small (Leech, Barrett & Morgan, 2005). Thus, team management should reinforce the brand image (team image) between fans and sport teams in developing marketing strategies.

The results indicated that most loyal MLB fans are blue collar or middle class. Therefore, team management should price their packages so that the target population can afford them.

For winning Florida Marlins fans, the results indicated that the stadium cannot explain fans' loyalty. This might be because there is no hometown stadium. Thus, team management is cooperating with the local government to build a "Marlins Stadium" instead of using the Dolphins Stadium. This may increase loyalty among Marlins fans.

Conclusions

The research topic explores MLB fans' brand loyalty and compares the differences of levels of loyalty between the winning and losing teams. Three dimensions with 16 factors were investigated, based on Gladden and Funk's 2002 Team Association Model. The research evidence shows that customer brand loyalty should follow certain processes. First, some antecedents affect customer's association, "anything linked in memory to a brand" (Aaker, 1991, p. 109) and formed the images toward the specific brand. Second, these association images influenced the feelings and attitude. The feelings could be positive or negative. If the customers hold a positive attitude toward a

brand, this positive attitude would be reflected in their behavior, such as a repeat purchasing behavior, or recommending this product to their families or friends by word of mouth. Finally, brand loyalty would be formed.

In general, customers become loyal under rational evaluation. Customers exhibit a positive attitude toward a specific brand, and their loyalty is usually based on the degree to which the brand meets or exceeds the expectations of quality, price and promotion. Rational customers may not be loyal to a car which is broken all the time. However, sports fans are very loyal to their teams even when those teams have losing records. This is the central point of this study.

Three dimensions with 16 factors were examined to understand the possible factors that affect fans' brand loyalty. In the attribute dimension, physical features were essential in fans' association with a team. Researchers indicated that the attribute factors may result in short-term benefits to sport teams (Gladden & Milne, 1999). Sports managers may also develop marketing tactics to gain short-term benefits, such as recruiting a head coach, signing a star player, changing team logo, and building an attractive stadium. However, "implementing short-term tactics does not necessarily guarantee long-term and consistent revenue streams" (Gladden & Milne, 1999, p. 21). The attribute dimension can explain the rational segment of sport fans' behavior. Fans may support a team because it has a winning record, superstar players, glamorous head coach, and attractive stadium. However, this does not explain why the fans also strongly support a team even when it has a losing record, no superstar player, no well-known head coach, and no stadium.

The dimension of benefits explains part of the emotional segment of sport fans' behavior. This study found that loyal fans were more interested in benefits factors, whether the team was winning or losing. Sports games gave fans a temporary respite from the daily routine, and the teams allowed fans to identify with the team, identify with a peer group, or shared memories. Thus, the researcher considered that the major pathway for fans becoming loyal is that the sports teams can satisfy the fans' psychological needs. This finding could be a reference for the Major League Baseball team management.

Limitations

The research limitations in this study were as follows. First, the most important limitation in this study was the research model. Previous researchers have studied many other factors related to customer brand loyalty. This study was based on Gladden and Funk's Team Association Model that only discussed three dimensions: attributes, benefits, and attitudes. Although the Team Association Model was based on Keller's well-known conceptual framework of brand equity, only 16 independent factors/variables were examined in this study. Marketing researchers indicated that there should be some environmental factors (intervening variables), such as sponsor support, multiple media, and government policy, which may influence customer brand loyalty as well.

The second limitation was in the choice of winning and losing teams. For practical reasons, the two teams were located in Florida. The Tampa Bay Devil Rays had a losing record for the prior five years (2001 to 2005) among MLB teams. In contrast, the Florida Marlins might not actually fit the description of a winning team. The average winning

percentage from 2001 to 2005 for Marlins was 54%. Other teams, such as New York Yankees and Boston Red Sox, had better records.

The third limitation was the non-experimental research design which may have decreased the internal validity of this study.

Finally, participants were limited to fans who went to a stadium to watch Florida Marlins and Tampa Bay Devil Rays games. These findings may not be generalized to other MLB fans.

Recommendations for Future Study

1. Compare winning and losing teams in the Chinese Professional Baseball League (CPBL).
2. Compare winning and losing teams in Nippon (Japanese) Professional Baseball (NPB).
3. Compare Major League Baseball (MLB) and Chinese Professional Baseball League (CPBL).
4. Compare Nippon Professional Baseball (NPB) and Chinese Professional Baseball League (CPBL).
5. Compare Major League Baseball (MLB), Nippon Professional Baseball (NPB), and Chinese Professional Baseball League (CPBL).
6. Compare winning and losing teams in other baseball leagues (Minor League Baseball, NCAA Baseball), or professional sports (National Basketball Association, National Football League, or National Hockey League).
7. Explore more influencing factors that may impact brand loyalty.

8. Explore intervening and mediating variables that may cause different consequences of brand loyalty.
9. Enlarge the sample size via attending more games at other MLB sites to enhance external validity (generalization).
10. Qualitative research method may be conducted by interviewing fans in the future in order to gather more information.

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APPENDIX A

Team Association Questionnaire-English Version

STUDY OF PROFESSIONAL SPORT FANS

Thank you for agreeing to participate in this study. If you are **not over 18 years old, not a Marlins or Devil Rays' fan, or have previously completed the survey questionnaire**, please stop and return this survey questionnaire to the researcher, thank you. If you do not meet the requirement above, please read each question carefully and decide how you feel about it. This is not a "test." There is no "correct" answer to any question. Even if you are not certain about the exact answer to a question, mark the answer that is most like your opinion and continue to the next question. Please work quickly and record your immediate thoughts. Some of the questions may seem similar to you, or may not be worded exactly the way that you would like them to be. Even so, give your best estimate and continue working through the questionnaire. It is important that you answer all the questions. Your best response is far more useful than an incomplete response. Thank you.

Part 1: Fan Characteristic Profile

Directions: Please respond to questions 1-5 by circling the best response.

1. Your gender? (Please circle the best response)

- A. Male B. Female

2. Your marital status? (Please circle the best response)

- A. Married B. Single C. Living with Partner or Significant Other

3. Your age? (Please circle the best response)

- A. 18 To 24 C. 35 To 44 E. 55 To 64
B. 25 To 34 D. 45 To 54 F. 65 or Older

4. Your highest level of education? (Please circle the best response)

- A. Did Not Graduate High School B. High School
C. College D. Graduate School

5. What is your annual personal income category?

- A. Less than \$ 15,000 B. \$ 15,000 to \$ 29,999 C. \$ 30,000 to 44,999
D. 45,000 to 59,999 E. \$ 60,000 to \$ 74,999 F. More than \$ 75,000

6. Your Estimate Travel Time to Games (Please circle the best response)

- A. Within 15 minutes. C. 31 Minutes to 60 Minutes
B. 15 Minutes to 30 Minutes. D. Over 60 Minutes

Part 2: Brand Association Attributes

Below are some statements about how people feel about their favorite professional sport team. Please think only about the favorite team you indicated earlier. Read each statement, then circle the appropriate number printed below to indicate your agreement or disagreement with the statement.

	Strongly Agree							Strongly Disagree						
I like the colors of my favorite team	1	2	3	4	5	6	7	1	2	3	4	5	6	7
The architecture of my favorite team's stadium is attractive	1	2	3	4	5	6	7	1	2	3	4	5	6	7
I do not care whether my favorite team wins or loses	1	2	3	4	5	6	7	1	2	3	4	5	6	7
I like the manager/head coach of my favorite team	1	2	3	4	5	6	7	1	2	3	4	5	6	7
The front office of my favorite team does its best to field a good team	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team's games are exciting	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team does not have any star players that I like to watch	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team has a history of winning	1	2	3	4	5	6	7	1	2	3	4	5	6	7
I like the logo of my favorite team	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team's stadium has "character"	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team's manager/head coach is well known throughout the sport	1	2	3	4	5	6	7	1	2	3	4	5	6	7
I like to watch my favorite team's star players	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team has a rich history	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team's front office does a good job running the team	1	2	3	4	5	6	7	1	2	3	4	5	6	7
It is very important that my favorite team reaches the post-season	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team's games are entertaining	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team's uniforms are attractive	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team's stadium enhances the enjoyment of attending games	1	2	3	4	5	6	7	1	2	3	4	5	6	7
The front office of my favorite team makes wise player personnel decisions	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team has no history	1	2	3	4	5	6	7	1	2	3	4	5	6	7
My favorite team's games are enjoyable	1	2	3	4	5	6	7	1	2	3	4	5	6	7
The manager/head coach of my favorite team does a good job	1	2	3	4	5	6	7	1	2	3	4	5	6	7
It is important that my favorite team competes for league championships	1	2	3	4	5	6	7	1	2	3	4	5	6	7

Note. Team Association Instrument is from "Developing an Understanding of Brand Associations in Team Sports: Empirical Evidence from Consumers of Professional Sport" by Gladden, J and Funk, D. C., 2002, Journal of Sport Management. Adapted with the permission of the authors.

Part 3: Brand Association Benefits

Below are some statements about how people feel about their favorite professional sport team. Please think only about the favorite team you indicated earlier. Read each statement, then circle the appropriate number printed below to indicate your agreement or disagreement with the statement.

	Strongly Agree						Strongly Disagree
Watching, reading, and talking about my favorite team provides a temporary escape from life's problems	1	2	3	4	5	6	7
Thinking of my favorite team brings back good memories	1	2	3	4	5	6	7
I began following my favorite team because of my friends	1	2	3	4	5	6	7
My favorite team helps its citizens be proud of where they live	1	2	3	4	5	6	7
It is important that my friends see me as a fan of my favorite team	1	2	3	4	5	6	7
I have fond memories of following my favorite team	1	2	3	4	5	6	7
Watching, reading, and talking about my favorite team helps me forget my day-to-day problems	1	2	3	4	5	6	7
My favorite team helps elevate the image of its community	1	2	3	4	5	6	7
It is important to follow the same team as my friends	1	2	3	4	5	6	7
My friends and family recognize me as a fan of my favorite team	1	2	3	4	5	6	7
When someone praises my favorite team, it feels like a compliment	1	2	3	4	5	6	7
I have fond memories of following my favorite team with friends and/or family members	1	2	3	4	5	6	7
My favorite team brings prestige to the community	1	2	3	4	5	6	7
Watching, reading, and talking about my favorite team takes me away from life's hassles	1	2	3	4	5	6	7
I follow my favorite team because my friends like the same team	1	2	3	4	5	6	7
When I talk about my favorite team, I usually say "we" rather than "they"	1	2	3	4	5	6	7

Note. Team Association Instrument is from "Developing an Understanding of Brand Associations in Team Sports: Empirical Evidence from Consumers of Professional Sport" by Gladden, J and Funk, D. C., 2002, Journal of Sport Management. Adapted with the permission of the authors.

Part 4: Brand Association Attitudes

Below are some statements about how people feel about their favorite professional sport team. Please think only about the favorite team you indicated earlier. Read each statement, then circle the appropriate number printed below to indicate your agreement or disagreement with the statement.

	Strongly Agree				Strongly Disagree		
I possess a great deal of knowledge about my favorite team	1	2	3	4	5	6	7
I consider my favorite team to be personally important	1	2	3	4	5	6	7
Being a fan of my favorite team is important to me	1	2	3	4	5	6	7
If I were to list everything I knew about my favorite team, the list would be quite long	1	2	3	4	5	6	7
Compared to other sport teams, I consider myself an expert about my favorite team	1	2	3	4	5	6	7
Compared to how I feel about other professional teams, my favorite team is very important to me	1	2	3	4	5	6	7

In the following section, please put an “X” mark in the box that most closely represents your feelings about your favorite team.

Foolish **Wise**

Good **Bad**

Worthless **Beneficial**

Strong **Weak**

Note. Team Association Instrument is from “Developing an Understanding of Brand Associations in Team Sports: Empirical Evidence from Consumers of Professional Sport” by Gladden, J and Funk, D. C., 2002, Journal of Sport Management. Adapted with the permission of the authors.

Part 5: Brand Loyalty

Below are some statements about how people feel about their favorite professional sport team. Please think only about the favorite team you indicated earlier. Read each statement, then circle the appropriate number printed below to indicate your agreement or disagreement with the statement.

	Strongly Agree				Strongly Disagree		
I would be willing to defend my favorite team publicly, even if it caused controversy	1	2	3	4	5	6	7
It would be difficult for me to change my allegiance from my favorite team to another professional team	1	2	3	4	5	6	7
I consider myself a committed fan of my favorite team	1	2	3	4	5	6	7
I would watch a game of my favorite team regardless of which team they were playing against	1	2	3	4	5	6	7

THANK YOU FOR YOUR TIME AND EFFORT IN COMPLETING THIS QUESTIONNAIRE. PLEASE PLACE THIS IN THE BOX WITH THE RESEARCH ASSISTANT.

Note. Team Association Instrument is from “Developing an Understanding of Brand Associations in Team Sports: Empirical Evidence from Consumers of Professional Sport” by Gladden, J and Funk, D. C., 2002, Journal of Sport Management. Adapted with the permission of the authors.

APPENDIX B

Team Association Questionnaire-Spanish Version

ESTUDIO SOBRE FANATICOS DE EQUIPOS PROFECIONALES

Gracias por su participación en este estudio. Si usted **no es mayor de 18 años, no es fanático de los Marlins o Devil Rays, o ya ha completado esta encuesta previamente**, favor pare y lea las siguientes descripciones y retorne esta encuesta al encargado, gracias. Si usted califica los requisitos descritos arriba, favor lea cada pregunta cuidadosamente y decida que siente sobre la cuestión. Esto no es un test. No hay respuestas “correctas” para ninguna de las preguntas. Aun si no esta seguro sobre la respuesta a la pregunta, marque la respuesta que mas le corresponda y pase a la siguiente pregunta. Por favor complete esto en tiempo adecuado y marque sus respuestas inmediatas. Algunas de las preguntas pueden aparecer similares, o escritas en forma que no es como la quieras entender. Aun así, de su mejor acierto y continúe con el cuestionario. Es importante que usted responda todas las preguntas. Su mejor respuesta es más útil que una incompleta. Gracias.

Parte 1: Perfil Característico de los Fanáticos

Direcciones: Por favor responda a las preguntas 1-5, circulando su mejor respuesta.

1. Genero? (Favor circule su mejor respuesta)

- A. Masculino B. Femenino

2. Su estado civil? (Favor circule su mejor respuesta)

- A. Casado B. Soltero C. Viviendo con su pareja

4. Edad? (Favor circule su mejor respuesta)

- A. 18 a 24 C. 35 a 44 E. 55 a 64
B. 25 a 34 D. 45 a 54 F. 65 o Mayor

5. Su mas alto grado de educación? (Favor circule su mejor respuesta)

- A. No graduado de escuela superior B. escuela superior
C. facultad D. Graduate School

5. Cual es su ingreso anual?

- A. Menos de \$ 15,000. B. \$ 15,000 a \$ 29,999. C. \$ 30,000 a 44,999.
D. 45,000 a 59,999. E. \$ 60,000 a \$ 74,999. F. Más de \$ 75,000.

7. Su tiempo de viaje para llegar a los partidos/juegos (Favor circule su mejor respuesta)

- A. Menos de 15 Minutos. C. 31 Minutos a 60 Minutos
B. 15 Minutos a 30 Minutos. D. Más de 60 Minutos

Parte 2: Atributos de la Asociación de Marcas

Abajo se encuentran algunas preguntas sobre como la gente siente por su equipo profesional preferido. Por favor piense en solamente su equipo favorito que indico anteriormente. Lea cada cuestión y circule el número apropiado, indicando si usted esta en acuerdo o desacuerdo con la cuestión.

	Acuerdo (Si)	Desacuerdo (No)
Me gustan los colores de mi equipo favorito	1 2 3 4	5 6 7
La arquitectura del estadio de mi equipo favorito es atractiva	1 2 3 4	5 6 7
No me importa si mi equipo favorito gane o pierda	1 2 3 4	5 6 7
Me gusta el entrenador/director de mi equipo favorito	1 2 3 4	5 6 7
El “front office” de mi equipo favorito hace su mejor esfuerzo para producir un buen equipo.	1 2 3 4	5 6 7
Los juegos de mi equipo favorito son emocionantes	1 2 3 4	5 6 7
Mi equipo favorito no tiene ningún superestrella que me gusta ver.	1 2 3 4	5 6 7
Mi equipo favorito tiene una historia con record ganador	1 2 3 4	5 6 7
Me gusta el logo de mi equipo favorito	1 2 3 4	5 6 7
El estadio de mi equipo favorito tiene “carácter”	1 2 3 4	5 6 7
El entrenador de mi equipo favorito es bien conocido en el deporte	1 2 3 4	5 6 7
Me gustan ver los superestrellas de mi equipo	1 2 3 4	5 6 7
Mi equipo favorito tiene una historia en el deporte	1 2 3 4	5 6 7
El “front office” de mi equipo favorito hace un buen trabajo manejando al equipo	1 2 3 4	5 6 7
Es importante que mi equipo favorito llegue al “post-season”	1 2 3 4	5 6 7
Los juegos de mi equipo favorito son entretenidas	1 2 3 4	5 6 7
Los uniformes de mi equipo favorito son atractivos	1 2 3 4	5 6 7
El estadio de mi equipo favorito amplia el disfrutar de los juegos	1 2 3 4	5 6 7
El “front office” de mi equipo favorito toma decisiones sabias sobre el “personnel” del equipo	1 2 3 4	5 6 7
Mi equipo favorito no tiene historia en el deporte	1 2 3 4	5 6 7
Disfruto los juegos de mi equipo favorito	1 2 3 4	5 6 7
El manager/entrenador de mi equipo favorito hace un buen trabajo	1 2 3 4	5 6 7
Es importante que mi equipo favorito compita para el campeonato.	1 2 3 4	5 6 7

Note. Team Association Instrument is from “Developing an Understanding of Brand Associations in Team Sports: Empirical Evidence from Consumers of Professional Sport” by Gladden, J and Funk, D. C., 2002, Journal of Sport Management. Adapted with the permission of the authors.

Parte 3: Beneficios de la Asociación de Marcas

Abajo se encuentran cuestiones sobre como la gente siente sobre su equipo profesional favorito. Por favor piense en solamente su equipo favorito que indico anteriormente. Lea cada cuestión y circule el número apropiado, indicando si usted esta en acuerdo o desacuerdo con la cuestión.

	Acuerdo (Si)	Desacuerdo (No)
Viendo, leyendo, y hablando sobre mi equipo favorito me provee un escape temporal de los problemas de la vida	1 2 3 4	5 6 7
Pensando sobre mi equipo favorito traen buenos recuerdos	1 2 3 4	5 6 7
Yo comencé a seguir mi equipo favorito por mis amigos	1 2 3 4	5 6 7
Mi equipo favorito ayuda a que los ciudadanos estén orgullosos en donde viven	1 2 3 4	5 6 7
Es importante que mis amigos me vean como un fanático de mi equipo favorito	1 2 3 4	5 6 7
Tengo lindos recuerdos cuando sigo a mi equipo	1 2 3 4	5 6 7
Viendo, leyendo, y hablando sobre mi equipo favorito me ayuda a olvidar de los problemas cotidianos	1 2 3 4	5 6 7
Mi equipo favorito ayuda a elevar la imagen de mi comunidad	1 2 3 4	5 6 7
Es importante seguir el mismo equipo que de mis amigos	1 2 3 4	5 6 7
Mis amigos y familia me reconocen como un fanático de mi equipo favorito	1 2 3 4	5 6 7
Cuando alguien complementa a mi equipo se siente como un complemento	1 2 3 4	5 6 7
Tengo lindos recuerdos cuando sigo mi equipo con mis amigos y/o familia	1 2 3 4	5 6 7
Mi equipo favorito trae prestigio a mi comunidad	1 2 3 4	5 6 7
Viendo, leyendo, y hablando sobre mi equipo favorito me saca de las molestias de la vida	1 2 3 4	5 6 7
Yo sigo a mi equipo porque mis amigos siguen al mismo equipo	1 2 3 4	5 6 7
Cuando hablo de mi equipo favorito normalmente digo "nosotros" en vez de "ellos"	1 2 3 4	5 6 7

Note. Team Association Instrument is from "Developing an Understanding of Brand Associations in Team Sports: Empirical Evidence from Consumers of Professional Sport" by Gladden, J and Funk, D. C., 2002, Journal of Sport Management. Adapted with the permission of the authors.

Parte 4: Atributos de la Asociación de Marcas

Abajo se encuentran cuestiones sobre como la gente siente sobre su equipo profesional favorito. Por favor piense en solamente su equipo favorito que indico anteriormente. Lea cada cuestión y circule el número apropiado, indicando si usted esta en acuerdo o desacuerdo con la cuestión.

	Acuerdo (Si)				Desacuerdo (No)		
Yo se mucho sobre mi equipo favorito	1	2	3	4	5	6	7
Yo considero a mi equipo favorito de importancia personal	1	2	3	4	5	6	7
Es importante ser un fanático de mi equipo favorito	1	2	3	4	5	6	7
Si yo escribiera todo lo que se sobre mi equipo, la lista seria bastante larga	1	2	3	4	5	6	7
Comparado a otros equipos, yo considero como un experto sobre mi equipo favorito	1	2	3	4	5	6	7
Comparado a como siento sobre los otros equipos, mi equipo favorito es importante para mi	1	2	3	4	5	6	7

En la siguiente sección, marque con una "X" la caja al que mas representa sus sentimientos sobre su equipo favorito.

Lento	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inteligente
Bueno	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Malo
Inútil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Beneficial
Fuerte	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Débil

Note. Team Association Instrument is from "Developing an Understanding of Brand Associations in Team Sports: Empirical Evidence from Consumers of Professional Sport" by Gladden, J and Funk, D. C., 2002, Journal of Sport Management. Adapted with the permission of the authors.

Parte 5: Lealtad a la Marca

Abajo se encuentran cuestiones sobre como la gente siente sobre su equipo profesional favorito. Por favor piense en solamente su equipo favorito que indico anteriormente. Lea cada cuestión y circule el número apropiado, indicando si usted esta en acuerdo o desacuerdo con la cuestión.

	Acuerdo (Si)				Desacuerdo (No)		
Estaría dispuesto a defender a mi equipo favorito públicamente, aun si provocaría controversia	1	2	3	4	5	6	7
Me seria difícil cambiar de equipos	1	2	3	4	5	6	7
Yo me considero como un fanático dedicado a mi equipo favorito	1	2	3	4	5	6	7
Yo vería el juego de mi equipo favorito sin importar con quien juegan	1	2	3	4	5	6	7

GRACIAS POR SU TIEMPO Y ESFUERZO EN COMPLETAR ESTE CUESTIONARIO. POR FAVOR USE EL ADJUNTO POSTAGE-PAID SOBRE PARA RETORNAR LA ENCUESTA.

Note. Team Association Instrument is from "Developing an Understanding of Brand Associations in Team Sports: Empirical Evidence from Consumers of Professional Sport" by Gladden, J and Funk, D. C., 2002, Journal of Sport Management. Adapted with the permission of the authors.

APPENDIX C

Permission Letter from Instrument Developer

Dear Yun-Tsan Lin:

You have my permission to use the questionnaire that was used in the development of the Team Association Model. That questionnaire is attached.

Please let me know if you have any questions. Good luck with your research!

Sincerely,

Jay Gladden, Ph.D.
Associate Professor and Graduate Program Director
Department of Sport Management
University of Massachusetts
236D Isenberg School of Management
121 Presidents Drive
Amherst MA 01003
[REDACTED] (phone)

-----Original Message-----

From: Yun-Tsan Lin2 [REDACTED]
Sent: Wednesday, May 03, 2006 9:31 PM
To: [REDACTED]
Subject: Ask for your permission of research instrument

Dear Dr. Gladden:

How are you? My name is Yun-Tsan Lin and I come from Taiwan. I am a student in the doctoral program and major in Corporate and Organizational management at Lynn University in Florida. I have read two of your excellent articles about "the link between brand associations and brand loyalty" published in 2001 and "developing an understanding of brand associations in team sport" published in 2002. The "Team Associations Questionnaire" you developed is very significant for conducting my dissertation topic: "factors influencing fans' brand loyalty in Florida Marlins and Tampa Bay Devil Rays". So I would like to ask for your permission to use your questionnaire in my study. Due to our school's policy and Institutional Review Board (IRB) requirement, would you please forward an approval letter via this e-mail with the sentence, like "You have my permission to use the questionnaire" and with your contact information in the follows? By the way, if I could get your approval letter, would you please forward the original questionnaire you tested in 2002 - "Developing an understanding of brand associations in team sport: Empirical evidence from consumers of professional sport". I deeply appreciate your help. I am looking forward to waiting for your reply. Thank you.

Sincerely,

Yun-Tsan Lin

APPENDIX D

**Permission Letter for Translating Team Association Questionnaire from English
Version to Spanish version from the Instrument Developer**

From: Jay Gladden [REDACTED]
Sent: Thursday, July 23, 2006 07:47 AM
To: [REDACTED]
Subject: RE: Hello from Yun-Tsan Lin

Sure, no problem - good luck!

--
Jay Gladden, Ph.D.
Associate Professor and Graduate Program Director
Department of Sport Management
Isenberg School of Management
University of Massachusetts
Amherst, MA 01003
[REDACTED]

-----Original Message-----

From: Yun-Tsan Lin2 [REDACTED]
Sent: Wednesday, July 22, 2006 10:14 PM
To: [REDACTED]
Subject: Hello from Yun-Tsan Lin

Hello, Dr. Gladden:

I am Yun-Tsan and I am sorry to bother you again. I passed my proposal defense last Friday and my chair really like your team association model. However, he suggested me that if I want to conduct this questionnaire in Miami area, I should consider the majority of population. In Miami, people speak in Spanish more than in English. Therefore, may I have your permission to translate Team Association Questionnaire from English to Spanish? I am going to prepare both English and Spanish versions for my subjects. Thank you very much. Good luck for everything.

Best Regards,

Yun-Tsan Lin

APPENDIX E

Approval Letter from Institutional Review Board



Lynn University

Principal Investigator: Yun-Tsan Lin
Project Title: Factors Influencing Fans' Brand Loyalty: A Comparison of Florida Marlins and Tampa Bay Devil Rays

IRB Project Number 2006-031 REQUEST FOR IRB EXEMPTION of Application and Research Protocol for a New Project

IRB ACTION by the IRB Chair or Another Member or Members Designed by the Chair

Review of Application and Research Protocol and Request for Exemption Status:

Approved X; Approved w/provision(s) _____

Complete FORM 3 (Expedited Review, including categories for expedited review) and Resubmit _____

Referred For Convened Full-Board Review _____

COMMENTS

Consent Required: No ___ Yes X Not Applicable _____ Written X Signed _____

Consent forms must bear the research protocol expiration date of 08/07/07.

Application to Continue/Renew is due:

- (1) For an Expedited IRB Review, one month prior to the due date for renewal X
- (2) For review of research with exempt status, by a College or School Annual Review of Research Committee _____. If the academic unit ("The Colleges and Schools") where the researcher is assigned does not have a committee in place, the application to Continue/Renew is submitted to the IRB, for an Expedited IRB Review no later than one month prior to the due date.

Name of IRB Chair (Print) _____ Farideh Farazmand _____

Signature of IRB Chair _____ [Redacted Signature] _____ Date: 08/07/06

Institutional Review Board for the Protection of Human Subjects
Lynn University
3601 N. Military Trail Boca Raton, Florida 33431

APPENDIX F

Authorization for Voluntary Consent – English Version



Lynn University

**THIS DOCUMENT SHALL ONLY BE USED TO PROVIDE AUTHORIZATION FOR
VOLUNTARY CONSENT**

PROJECT TITLE: Factors Influencing Fans' Brand Loyalty: A Comparison of Florida Marlins and Tampa Bay Devil Rays
Project IRB Number: 2006-031 Lynn University 3601 N. Military Trail Boca Raton, Florida 33431

I, Yun-Tsan Lin, am a doctoral student at Lynn University. I am studying Global Leadership, with a specialization in Corporate and Organizational Management. Part of my education is to conduct a research study.

DIRECTIONS FOR THE PARTICIPANT:

You are being asked to participate in my research study. Please read this carefully. This form provides you with information about the study. The Principal Investigator (Yun-Tsan Lin) will answer all of your questions. Ask questions about anything you don't understand before deciding whether or not to participate. You are free to ask questions at any time before, during, or after your participation in this study. Your participation is entirely voluntary and you can refuse to participate without penalty or loss of benefits to which you are otherwise entitled.

PURPOSE OF THIS RESEARCH STUDY: The study is about Major League Baseball fans' brand loyalty. There will be approximately 470 people participating in this study. These are fans of Florida Marlins and Tampa Bay Devil Rays who attend the ballpark to watch the game. Fans must be 18 years and older. Fans must be able to read, speak, and write in English or Spanish.

PROCEDURES:

You will first complete a fan characteristics survey. Then you will be asked to complete a 49-item survey of your association to your supported team and 4-items survey of your brand loyalty (Team Association Questionnaire). This survey should take about 7 minutes to complete. If necessary, the researcher (Yun-Tsan Lin) can help you in completing the surveys.

POSSIBLE RISKS OR DISCOMFORT: This study involves minimal risk. You may find that some of the questions are sensitive in nature. In addition, participation in this study requires a minimal amount of your time and effort.

POSSIBLE BENEFITS: There may be no direct benefit to you in participating in this research. But knowledge may be gained which may help management developing marketing strategies in professional sports industry.

FINANCIAL CONSIDERATIONS: There is no financial compensation for your participation in this research. There are no costs to you as a result of your participation in this study.

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Lynn University
3601 N. Military Trail Boca Raton, Florida 33431

ANONYMITY: This survey will be anonymous. You will not be identified and data will be reported as "group" responses. Participation in this survey is voluntary and return of the completed survey will constitute your informed consent to participate. The results of this study may be published in a dissertation, scientific journals or presented at professional meetings. Your individual privacy will be maintained in all publications or presentations results from this study.

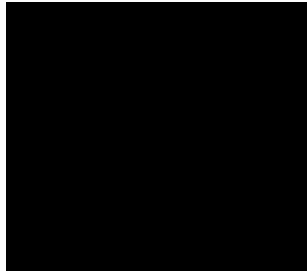
RIGHT TO WITHDRAW: You are free to choose whether or not to participate in this study. There will be no penalty or loss of benefits to which you are otherwise entitled if you choose not to participate.

CONTACTS FOR QUESTIONS/ACCESS TO CONSENT FORM: Any further questions you have about this study or your participation in it, either now or any time in the future, will be answered by Yun-Tsan Lin (principal Investigator) who may be reached at: [REDACTED] and Dr. Eldon Bernstein, faculty advisor who may be reached at: [REDACTED]. For any questions regarding your rights as a research subject, you may call Dr. Farideh Parazmand, Chair of the Lynn University Institutional Review Board for the Protection of Human Subjects, at [REDACTED]. If any problems arise as a result of your participation in this study, please call the Principal Investigator (Yun-Tsan Lin) and the faculty advisor (Dr. Eldon Bernstein) immediately. A copy of this consent form will be given to you.

INVESTIGATOR'S AFFIDAVIT: I have carefully explained to the subject the nature of the above project. The person participating has represented to me that he/she is at least 18 years of age, and that he/she does not have a medical problem or language or educational barrier that precludes his/her understanding of my explanation. I hereby certify that to the best of my knowledge the person who is signing this consent form understands clearly the nature, demands, benefits, and risks involved in his/her participation and his/her signature is legally valid.

[REDACTED]
Signature of Investigator

Date of IRB Approval: 8/7/06 7.7.



APPENDIX G

Authorization for Voluntary Consent – Spanish Version



Lynn University

**ESTE DOCUMENTO SERA USADO UNICAMENTE PARA PROVEER
AUTORIZACION PARA EL CONSENTIMIENTO VOLUNTARIO**

TITULO DEL PROYECTO: Factores Que Influencian la Lealtad de los Fanáticos : Comparación de los Florida Marlins y los Tampa Bay Devil

Proyecto IRB Numero: 2006-031 Lynn University 3601 N. Military Trail Boca Raton, Florida 33431

Yo, Yun-Tsan Lin, soy un estudiante doctoral en Lynn University. Estoy estudiando Global Leadership, con la especialización en Corporate and Organizational Management. Parte de mi educación es conducir un estudio de una investigación.

DIRECCIONES PARA EL PARTICIPANTE

Están pedidos para participar en mi estudio de la investigación. Por favor lea cuidadosamente. Esta hoja le proveerá información sobre el estudio. El investigador principal (Yun-Tsan Lin) contestara todas sus preguntas. Haga preguntas sobre cualquier cosa usted no entienda antes de decidir si o no participar. Usted está libre hacer preguntas en cualquier momento antes, durante, o después de su participación en este estudio. Su participación es enteramente voluntaria y usted puede rechazar participar sin pena o la pérdida de ventajas a las cuales les dé derecho de otra manera.

PROPOSITO DE LA INVESTIGACION: El estudio es sobre los fanáticos del Major League Baseball y la lealtad a sus equipos. Habrá aproximadamente 470 personas participando en este estudio. Estos son los fanáticos de los Florida Marlins y Tampa Bay Devil Rays quienes atiendan el estadio para ver el juego. Los participantes deben ser mayores de 18 años. Participantes también deben poder leer, hablar, y escribir fluido en inglés.

PROCEDIMIENTOS:

Usted primero terminará una encuesta sobre las características de los fanáticos. Luego serán pedidos a que completen un 49-item examen de su asociación a su equipo favorito y un 4-items examen de su lealtad al equipo (Team Association Questionnaire). Este cuestionario debería tomar cerca de 7 minutos para terminar. En caso de necesidad, el investigador (Yun-Tsan Lin) puede ayudarle en terminar el cuestionario.

POSIBLES RIESGOS O MALESTARES: Este estudio implica mínimo riesgo. Usted puede encontrar que algunas de las preguntas son sensibles en naturaleza. Además, la participación en este estudio requiere una cantidad mínima de su tiempo y esfuerzo.

VENTAJAS POSIBLES: No hay ventajas directas a usted en participar en esta investigación. Pero el conocimiento que se adquiere puede ayudar a la gerencia en crear estrategias de marketing en las industrias del deporte.

Institutional Review Board for the Protection of Human Subjects
Lynn University
3601 N. Military Trail Boca Raton, Florida 33431

CONSIDERACIONES FINANCIERAS: No hay compensación financiera por su participación en esta investigación. No hay gastos a usted como resultado de su participación en este estudio.

ANONIMATO: Esta encuesta será anónima. Usted no será identificado y los datos serán divulgados como respuestas del "grupo". La participación en este examen es voluntaria y el retorno del examen terminado constituirá su consentimiento informado para participar. Los resultados de este estudio se pueden publicar en una disertación, diarios científicos o ser presentados en reuniones profesionales. Su privacidad individual será mantenida en todas las publicaciones o presentaciones de estos estudios.

DERECHO DE RETIRARSE: Usted está libre elegir si o no participar en este estudio. No habrá pena o pérdida de ventajas a las cuales le den derecho de otra manera si usted elige no participar

CONTACTOS PARA PREGUNTAS/ACCESO AL FORMULARIO DE CONSENTIMIENTO: Cualquier pregunta más que usted tenga sobre este estudio o su participación en él, que sea ahora o cualquier tiempo en el futuro, será contestado por Yun-Tsan Lin (investigador principal) quien puede ser alcanzado en el numero: [REDACTED] y el Dr. Eldon Bernstein, consejero de la facultad quien puede ser alcanzado en el numero: [REDACTED]. Para cualquier pregunta con respecto a las sus derechos como tema de la investigación, usted puede llamar al Dr. Farideh Farazmand, Chair de la institución en la Universidad de Lynn para la protección de temas humanos, en [REDACTED]. Si algunos problemas se presentan como resultado de su participación en este estudio, llame por favor a investigador principal (Yun-Tsan Lin) y el consejero de la facultad (el Dr. Eldon Bernstein) inmediatamente. Una copia de este Formulario del Consentimiento le será dada.

DECLARACION DEL INVESTIGADOR: He explicado cuidadosamente al participante la naturaleza del proyecto antedicho. El participante ha representado ser por lo menos 18 años de edad, y que el/ella no tiene un problema médico o lengua o barrera educativa que imposibilite su comprensión de mi explicación. Certifico por este medio, al mejor de mi conocimiento que la persona que está firmando este formulario de consentimiento entiende claramente la naturaleza, las demandas, las ventajas, y los riesgos implicados en su participación y su firma es legalmente válida.

Firma del Investigador

Fecha de la aprobación del IRB l: 8/7/06 7.7.

APPENDIX H

MLB Teams Winning Rate from 2001-2005 Season

American League MLB Teams Winning Rate (2001 – 2005 Regular Season)

Team	2001	Team	2002	Team	2003	Team	2004	Team	2005
Seattle	0.716	Seattle	0.72	NY Yankees	0.741	Minnesota	0.667	Chicago Sox	0.727
Oakland	0.63	Boston	0.652	Kansas	0.68	Chicago Sox	0.6	Baltimore angel (Anaheim)	0.667
NY Yankees	0.594	NY Yankees	0.615	Seattle	0.64	Boston	0.591		0.545
Cleveland	0.562	Oakland	0.6	Oakland	0.6	Detroit LA	0.571	Boston	0.524
Minnesota	0.525	Chicago Sox	0.577	Boston	0.593	Angel	0.571	Oakland	0.5
Chicago Sox	0.512	Minnesota	0.56	Chicago Sox	0.538	Texas	0.571	Minnesota	0.478
Boston	0.509	Cleveland	0.5	Baltimore	0.462	Baltimore	0.5	Seattle	0.455
Toronto	0.494	Baltimore	0.44	LA angel	0.44	Oakland NY	0.476	Toronto	0.435
LA angel	0.463	LA angel	0.4	Texas	0.44	Yankees	0.455	Detroit Cleveland	0.391
Texas	0.451	<u>Tampa</u>	<u>0.391</u>	Minnesota	0.385	Cleveland	0.364	NY	0.364
Detroit	0.407	Texas	0.36	<u>Tampa</u>	<u>0.385</u>	Kansas	0.35	Yankees	0.364
Kansas	0.401	Toronto	0.333	Toronto	0.385	<u>Tampa</u>	<u>0.35</u>	<u>Tampa</u>	<u>0.364</u>
Baltimore	0.391	Detroit	0.292	Cleveland	0.259	Toronto	0.333	Texas	0.335
<u>Tampa</u>	<u>0.383</u>	Kansas	0.292	Detroit	0.125	Seattle	0.318	Kansas	0.227

Note. Arranged by the researcher from MLB.com

National League MLB Teams Winning Rate (2001 – 2005 Regular Season)

Team	2001	Team	2002	Team	2003	Team	2004	Team	2005
Houston	0.574	Arizona	0.64	San Francisco	0.72	<u>Florida</u>	<u>0.667</u>	Arizona	0.636
St. Louis	0.574	Cincinnati	0.625	Philadelphia	0.615	LA Dogers	0.65	LA Dogers	0.619
Arizona	0.562	LA Dogers	0.615	Atlanta	0.6	Chicago cubs	0.591	<u>Florida</u>	<u>0.6</u>
San Francisco	0.549	NY Mets	0.6	Colorado	0.56	San Diego	0.591	Atlanta	0.591
Atlanta	0.543	Washington (Montreal)	0.6	Washington (Montreal)	0.556	Cincinnati	0.545	St. Louis	0.571
Chicago cubs	0.543	San Francisco	0.583	Chicago cubs	0.538	Milwaukee	0.545	Chicago cubs	0.524
LA Dogers	0.537	Pittsburgh	0.56	<u>Florida</u>	<u>0.481</u>	Atlanta	0.524	NY Mets	0.5
Philadelphia	0.531	San Diego	0.5	St. Louis	0.458	Houston	0.524	Washington (Montreal)	0.5
NY Mets	0.506	<u>Florida</u>	<u>0.48</u>	LA Dogers	0.444	St. Louis	0.476	Cincinnati	0.476
San Diego	0.494	St. Louis	0.48	Houston	0.44	Philadelphia	0.45	San Francisco	0.476
<u>Florida</u>	<u>0.469</u>	Atlanta	0.462	NY Mets	0.423	Arizona	0.429	Philadelphia	0.455
Colorado	0.451	Houston	0.458	Arizona	0.407	Colorado	0.429	San Diego	0.409
Milwaukee	0.42	Colorado	0.36	Pittsburgh	0.4	Pittsburgh	0.429	Houston	0.4
Washington (Montreal)	0.42	Chicago cubs	0.32	San Diego	0.4	San Francisco	0.409	Pittsburgh	0.4
Cincinnati	0.407	Philadelphia	0.32	Cincinnati	0.385	NY Mets	0.381	Milwaukee	0.364
Pittsburgh	0.383	Milwaukee	0.28	Milwaukee	0.346				

Note. Arranged by the researcher from MLB.com

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