

UNDERSTANDING THE IMPACT OF CORE PRODUCT QUALITY ON  
CUSTOMER SATISFACTION, TEAM IDENTIFICATION, AND SERVICE  
QUALITY

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CLINTON J. WARREN

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Dr. Stephen Ross, Adviser

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## ABSTRACT

Customer satisfaction is one of the most important factors in ensuring the long-term financial success of any organization. Previous marketing research suggests that customer satisfaction is influenced by the quality of an organization's core offerings. Customer satisfaction is developed by ensuring product quality in goods based industries, and it is facilitated by delivering quality services in service based industries. Spectator sport is a unique sector of business that includes both product and service delivery. The game experience is at the core of spectator sport consumption. The core sport product is a unique aspect of the marketing mix that is not controlled by sport managers. However, core product quality is critically important to customer satisfaction. Additionally, team sport consumers develop unique psychological and emotional attachments to the organizations they support. This attachment, team identification, is an important construct that influences the team sport consumer in a variety of ways. Team identification has been shown to influence perceptions of service quality and overall customer satisfaction. This study is one of the first to attempt to develop, and test, a theoretical model that explains customer satisfaction in team sport by including core product quality, team identification, and service quality perceptions.

This study utilized a non-experimental survey design to test the proposed team customer satisfaction model (TCSM) in two contexts. Data were collected at a NCAA Division I-FCS football game and men's basketball game. Participants completed a questionnaire comprised of measurement scales assessing customer satisfaction, core product quality perceptions, team identification, and service quality perceptions. A confirmatory factor analysis was conducted in an attempt to examine the fit for the

TCSM to each sample. The model was evaluated for overall fit and path coefficients were examined to determine the degree to which independent variables were predictive of the dependent variables in the model.

The results indicated that the TCSM did not fit the data collected in either sample. However, analysis of the structural paths within the model indicated that core product quality holds a weak causal influence over customer satisfaction, team identification, and service quality. Additionally, it was found that team identification was only a causal predictor of customer satisfaction and service quality evaluations in one model test. The results of this study suggest the model should be re-specified and further tested with the available data.

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# CHAPTER I

## INTRODUCTION

Customer satisfaction is defined as a post-choice, cognitive judgment connected to a particular purchase decision (Day, 1984). Often customer satisfaction is described as the link between perceived quality and post-purchase evaluations and decisions (Churchill & Surprenant, 1982; Cronin & Taylor, 1992). Customer satisfaction has been found to exhibit strong influence on intent to re-purchase and overall customer retention (Tornow & Wiley, 1991), and firms often use customer satisfaction as a primary measure of product and/or service performance (Anderson & Sullivan, 1993). For example, an individual who attends a sporting event will evaluate the quality of the experience during, and after, the game. If the individual perceives the sporting event has provided a high quality experience, he/she will leave the game a satisfied customer. Furthermore, the individual will make future entertainment purchase decisions based on the outcome of this experience. Likewise, if the individual does not feel as though the entertainment experience was of high quality, the person will leave the game dissatisfied. This dissatisfaction will also shape the individual's future entertainment purchase decisions.

Customer retention exists as one of the most challenging and lucrative organizational goals for a business. Marketing theory has long recognized that customer satisfaction provides the foundation for high customer retention rates. Anderson, Fornell, and Lehman (1994) showed that there is strong economic benefit to a firm that is able to maintain high levels of customer satisfaction and customer retention rates. With this in mind, a primary organizational concern becomes achieving this high level of satisfaction

among consumers. The concepts of quality and performance have been identified as determinants of satisfaction. In product-based industries, the primary determinant is product quality (Kotler, 1989), and is defined as a product's ability to perform its stated task (Kotler, 1989). For service-based firms, consumer perceptions of quality become the primary indicator of satisfaction (Cronin & Taylor, 1992). The spectator sport industry represents a unique combination of both products and services. However, the spectator sport industry has been primarily viewed as a service industry because marketers have little, or no, control over the core product. That is to say, that sport marketers do not have an influence on the quality of the team, or event, on the court, field, or ice. Empirical evidence, from studies that view sport from this lens, shows that customer satisfaction in the sport industry is driven by consumer perceptions of service quality (Alexandris, Zahariadis, Tsorbatzoudis, & Grouios, 2004). As an industry with obvious service components, spectator sport organizations must strive to be perceived by consumers as providing high quality services to ensure a long-term financial success that is, at least somewhat, insulated from team success or failure. However, spectator sport also includes tangible physical components. Consumer perceptions of these tangible goods also contribute to overall customer satisfaction (Oliver, 1993). Furthermore, the core sport product is the actual event that occurs on the playing surface (Masteralexis, Barr, & Hums, 2009), and it is an uncontrollable variable that creates unique challenges for sport marketers. As a result, sport marketing researchers have sharply focused on understanding the influence controllable variables, like service quality and performance, have on customer satisfaction.

The experiential nature of customer satisfaction makes it a construct that is unique to each individual consumer (Oliver, 1993) and thus difficult to quantify for one large consumer group. Customer satisfaction, or dissatisfaction, outcomes are based on subjective perceptions of quality rather than objective organizational quality standards (Greenwell, Fink, & Pastore, 2002). This means that organizations must work to fully understand a variety of different types of consumers of their products and services to ensure a high level of perceived quality among those diverse groups. However, while quality and customer satisfaction are inseparably linked in service-based industries, the two terms are not synonymous. Numerous researchers argue that they are not identical constructs, but service quality has an important relationship with customer satisfaction (Chelladurai & Chang, 2000; Mullin, Hardy, & Sutton, 2000; Greenwell et al, 2002; Robinson, 2006). As such, organizations must work to discover how consumers perceive the quality of the services offered to ensure satisfaction and customer retention.

As mentioned, empirical evidence shows that customer satisfaction has a strong, positive relationship with re-purchase intentions (Oliver, 1993). It has been argued that repeat purchasing of same-brand products and/or services is consumer loyalty (Tellis, 1988). However, Oliver (1999) argues that this definition does not sufficiently explain the psychological meaning of loyalty. He defines loyalty as a deeply held commitment to re-purchase a preferred product, or service, consistently in the future despite situational influences and marketing efforts having the potential to cause switching behavior (Oliver, 1997). Oliver's (1997) definition is most appropriate for this research because of the study's emphasis on team identification as an expression of a consumer's deeply held psychological commitment to her/his team. This psychological commitment can be

developed without repeat purchases and is considered a precursor to consumer loyalty (Lee, Trail, & Anderson, 2009). Prior research describes team identification in one of two ways. First, team identification was developed using social identity theory as a foundation (Wann & Branscombe, 1993). Since, the development of this construct unique to team sport, researchers have begun using it as a highly valuable way to describe consumer populations (Kwon & Trail, 2005; Trail, Anderson, & Fink, 2005; Ross, Walsh, & Maxwell, 2009; Theodorakis, Dimmock, Wann, & Barlas, 2010). However, the measurement of team identification has evolved, and as a result, it is now often discussed as a construct that is a precursor to consumer loyalty.

Previous research is conflicted in the way it views customer satisfaction in relation to consumer loyalty. Oliver (1999) describes six possible constructions of the relationship between satisfaction and loyalty. He argues that customer satisfaction, while not synonymous with loyalty, transforms into loyalty after many repeated satisfaction outcomes. This characterization of consumer loyalty is different than Tellis's (1988) definition. For example, a high frequency of visits to the same supermarket could mean a consumer is loyal; however, that is not necessarily the case as Tellis's (1988) definition would suggest. Instead, a stronger psychological attachment must be at work for loyalty to exist. Furthermore, loyalty in spectator sport is often influenced in a very different way than the traditional business sector. A fan's loyalty to her/his favorite sport team may not be influenced by frequency of purchase at all. Many team sport fans are influenced by significant others in their lives (Mullin, et al., 2007). This influence can develop loyalty without any direct consumption experience. This loyalty is often expressed by a deep personal commitment and emotional involvement with a team that

insulates the consumer from the effects of poor core product quality or team performance. This particular expression of consumer attitude is referred to as team identification (Lee, Trail, & Anderson, 2009) and has been extensively researched in the sport marketing literature.

While both team identification and core product quality might influence the relationship between perceptions of quality and satisfaction, it is still important to understand the quality of the various service encounters as the consumer moves through the sportscape. It is still likely that as an industry with service-based components, spectator-sport consumers will be influenced by service quality. Consistent with Madrigal (1995) and Rasmussen (1999), this study argues that consumer perceptions of the sportscape are not the primary determinants of customer satisfaction. However, this investigation argues that core product quality and team identification are more important to overall satisfaction judgments in team sport than service quality. Additionally, this paper contends that both team identification and core product quality influence the relationship between service quality and customer satisfaction. Finally, this research suggests that there is a causal relationship between core product quality and team identification.

#### *Statement of the Problem*

Customer satisfaction is critical to fostering re-purchase intentions and behaviors and thus developing actual consumer loyalty across many business sectors. In the service industry, one of the primary determinants of customer satisfaction is consumer perception of the service quality delivered. Therefore, it is clear that service firms must work to provide high levels of service quality to ensure customer satisfaction. While spectator

sport is widely considered a service-based industry segment, a further investigation of the literature reveals it is an industry driven by a unique type of product, the game experience. Furthermore, the emotional attachment between a consumer and a sport organization is different than any attachment in the traditional business industry. This emotional attachment is developed, and expressed, in very unique ways. A person can develop a strong psychological attachment to a sport team without any direct consumption experience. This is the case for children who become fans of a sport team through the influence of parents, friends, and/or other relatives. This can become an unwavering, life-long connection resulting in a very lucrative relationship for the sport organization. This attachment is known as team identification. The most highly identified fans are unlikely to engage in any product switching behavior, and can be described as having reached an extremely high level of consumer loyalty. As a result of the importance of customer satisfaction, service quality, consumer loyalty, core product quality, and team identification a rich body of literature has emerged studying each of these constructs. However, little research exists that examines the unique mediating role that core product quality and team identification play in influencing perceptions of service quality and satisfaction. While studies suggests that team identification is linked to consumer motivations, no research exists that addresses team identification and core product quality as influential constructs in both service quality and customer satisfaction evaluations. Instead, the literature often views team identification as a segmenting tool, and as a means for explaining behavioral intentions and psychological attachment. It is important to continue to view team identification in this light as it is a highly valuable segmentation strategy and it has a meaningful relationship with consumer intention to re-

purchase; however, research is needed to better understand the relationships between team identification, core product quality, service quality, and customer satisfaction. Specifically, research is needed to examine the role the core sport product plays in influencing each of these constructs. The general lack of emphasis on the influence core product quality has in spectator-sport settings represents a critical gap in the literature. This study seeks to address this concern by including consumer perceptions of the core sport product in a structural model with the variables more typically recognized as having significant relationships with customer satisfaction.

#### *Purpose of the Study*

The purpose of this study is two-fold. First, the study seeks to examine existing team sport customer satisfaction theory and propose a new theoretical model, the team customer satisfaction model (TCSM). The second purpose is to empirically test the TCSM at two different sporting events. The TCSM proposes a number of causal relationships among core product quality, team identification, service quality, and customer satisfaction. Specifically, it is theorized that core product quality will have a direct causal influence upon team identification, service quality, and customer satisfaction evaluations. Additionally, it is theorized that team identification will exhibit causal influence upon service quality evaluations and customer satisfaction. Finally, consistent with existing sport marketing theory, this study suggests that service quality has a direct relationship of causality upon customer satisfaction.

#### *Theoretical Framework and Hypotheses*

This study describes customer satisfaction theory and seeks to advance the understanding of customer satisfaction in team sport settings. As a result, the hypotheses

of this study have been generated, and researched, through a number of broad theoretical lenses. First, this investigation recognizes that the practical implications of this study are represented by market segmentation theory. The hypothesized influential relationships of core product quality and team identification can yield useful information for sport marketing practitioners. Specifically, the results of this study will be used by a sport marketer to target individual consumer groups with unique core product or service quality messages that are likely to cause consumer action for specific market segments. Team identification is a consumer variable that provides the marketer with much more information about consumer groups than typical demographic or geographic data. As such, the practical use of team identification is represented by market segmentation theory. Additionally, team identification itself is viewed from multiple perspectives. This study views team identification as a precursor to loyalty. As a result, this study suggests the importance of team identification is in influencing satisfaction and developing loyalty among sport consumers. The following sections provide further explanation of the theoretical approaches in the current study.

#### *Market Segmentation and Target Marketing*

Market segmentation is a key component of the marketing process. Segmentation has been defined as the subdividing of a consumer market into smaller, more homogeneous, subsets of consumers (Kotler, 1997). This division of the larger marketplace into smaller groups to which a specific marketing message is delivered is called target marketing. Target marketing allows an organization to more accurately market its products, and/or services to diverse consumer groups (Frank, Massey, & Wind, 1972). As such, the purpose of market segmentation is primarily two-fold. A well-

planned segmentation strategy can maximize both customer satisfaction and overall market demand for a product or service. As a result, using market segmentation to identify and penetrate specific target markets becomes a critical component in maximizing revenue for all types of organizations. The sport marketplace represents a smaller subset of the larger marketplace as a whole. However, sport consumers represent a very large target market. In fact, the “Lifestyle Market Analyst” is a reference index that examines demographics and consumer lifestyles in the United States. Sport, fitness, and health are one of the seven primary categories found in this index (Mullin, et al., 2007). The “Lifestyle Market Analyst” provides a useful tool in understanding broad consumer groups, and it illustrates that the very nature of sport marketing is rooted in the principles of target marketing and market segmentation. However, the larger sport consumer group represented in the lifestyle index is an extraordinarily heterogeneous group. Some consumers are passionate fans that will consume the sport product without regard for team performance. However, other consumers use the sport experience as a vehicle for doing business (Meir, 2000; Shank, 2002; Westerbeek & Smith, 2003). Fullerton and Dodge (1995) state that consumers of like sport products should not be placed in a single market segment. They found five distinct segments of consumers for the sport of golf alone. Therefore, to maximize both customer satisfaction and market demand, sport marketers use market segmentation as a common practice in targeting diverse consumer groups.

Perhaps most importantly, each consumer group experiences the sport product in a different way. That differing experience is driven by the specific outcome consumers in a given group are seeking when they purchase the sport product or service (Milne &

McDonald, 1999). The diversity of sport consumer groups, even as it pertains to consumers of the same sport product, comes partly as a result of the nature of the sport product. The sport product has been described as a bundle of benefits and suggests that the sport product consists of a variety of layers. At the heart of these layers are the core benefits of purchasing a given sport product (Mullin, et al., 2007). For example, a consumer may purchase tickets to see a hockey game, but the core benefit of attending the game may be entertainment or sociability. Therefore, the core benefit being purchased by individual consumers can greatly differ among consumers of the same product. As a result, a successful marketing strategy will include multiple ways to deliver unique messages about the same product or service to different target markets. To accomplish this goal, marketers develop strategies that are designed to position a product or service in the consumer's mind (Mullin, et al., 2007). Product positioning generally occurs as part of the product development, product differentiation, and branding processes. These processes rely on the marketing function to deliver product information to the consumer. Given that the same sport product or service is able to provide different core benefits to consumers, sport marketers should develop marketing initiatives that highlight these core benefits. Then, through target marketing, and market segmentation, the organization can work to deliver those unique messages to the diverse consumer groups identified.

Target marketing and market segmentation are widely used strategies in the sport industry. However, market segmentation requires an organization to allocate additional resources in order to reach a target group. Accordingly, sport marketers must weigh the economic benefits and incremental costs of segmenting a market (Tapp & Clowes,

2000). Mullin, Hardy, and Sutton (2007) propose three critical issues that must be examined to determine the viability of segmentation. First, a marketer must determine if a segment can be identified within the larger marketplace. More specifically, the marketer must be able to identify both the size and purchasing power of a market segment. Second, a marketer should evaluate the accessibility of the market segment. That is, a marketer should not segment a larger market if they cannot deliver a specific message to the smaller subset group without upsetting the marketing efforts directed toward other groups. Third, the responsiveness of the potential market segment should be assessed. A market segment is likely to be responsive if the group feels the product or service offered is meeting a specific need or want of the consumer group. An additional concern regarding market responsiveness is the viability of the market segment. The marketer must be sure to evaluate the overall financial benefit of reaching a market segment. If it can be determined that a market segment can be identified, accessed, and will respond to a marketing campaign with favorable financial outcomes of the organization, then segmentation is a viable option (Mullin, et al., 2007).

Additionally, Mullin, et al. (2007) categorize market segmentation into four distinct bases within in the sport industry: demographic, psychographic, product usage, and product benefit. They explain that market segments should be formed on the basis of differences in consumer wants. Demographic segmentation includes grouping consumers on the basis of geography, income, age, gender, race/ethnicity, and/or sexual orientation. Generally, demographic information is easier to obtain than information from the other segmentation bases. Psychographic segmentation attempts to group consumers by personality traits, lifestyle characteristics, preferences, and

perceptions. Product usage segmentation groups consumers based on the frequency and intensity by which they purchase a given product or service, while product benefit segmentation separates consumers according to the specific core benefit that they desire to achieve. Mullin, et al. (2007) then make the conceptual conclusion that market segments are ultimately derived from customer satisfaction. This theory relies on an assumption that homogeneity among consumers grouped by one of the four bases of segmentation results in homogeneity in consumer wants and determinants of satisfaction. These four bases of segmentation form the foundation for a rich body of literature.

Milne and McDonald (1999) identify a number of different types of market segmentation strategies that extend the four based approach described by Mullin, et al. (2007). Milne and McDonald (1999) suggest that geodemographic, motivational, heavy/light usage and variety seeking behavior, and activity cluster segmentation represent alternative approaches. Specifically, geodemographic segmentation strives to not only segment consumers on the basis of geographic location, but by similarities in product preferences as well (Mitchell, 1995). Milne and McDonald (1999) reiterate Kotler's (1997) argument that market segments must be measurable, substantial, accessible, differentiable, and actionable. Milne and McDonald (1999) also argue that the use of motivational segmentation will allow marketers to determine if a market is able to be differentiated and if it is actionable. The authors argue that understanding consumer motivations for consumption of given sport products permits the comparison of conceptual similarities, and differences, among consumer groups.

As one of the most well-established forms of market segmentation, grouping consumers by levels of product usage (Twedt, 1964) is incorporated in Milne and McDonald's (1997) view of alternative segmentation approaches. It is argued that it would be useful for sport marketers to use segmentation of heavy or light usage patterns in conjunction with segmentation by variety-seeking behavior across all sports (Milne & McDonald, 1997). The reason for this strategy's usefulness is that sport consumers tend to pursue multiple sport activities (Brooks, 1994), and the combination of usage patterns and usage rates allows marketers to better understand sport consumers. Finally, Milne and McDonald (1997) argue that activity cluster segmentation is a valuable target marketing approach. Research suggests that consumers view activity clusters as communities exhibiting a set of shared values. Additionally, Shoham and Kahle (1996) provide three theorized sport activity clusters: consumers engaged in competitive sport, individuals active in fitness sport, and individual participants in nature-related sport. Milne and McDonald (1997) then suggest that market research should further examine activity cluster segmentation.

While Milne and McDonald (1997) provide four alternative approaches to market segmentation, other researchers have identified a number of different approaches to market segmentation as well. Clowes and Tapp (2000) state that consumer profiles are developed for market segmentation by taking aggregates of demographic and psychographic variables among consumers. Jobber (1995) took another step in classifying these market segmentation approaches as either behavioral or profile-based. Typically, behavioral approaches to market segmentation consist of grouping consumers by product need or value to the firm (Peppers & Rogers, 1993; Patron, 1994;

Stone, 1996). Product need is defined as a given consumer group's desire for the product or service; while value to the firm refers to segmenting consumers based on the financial value a consumer has to the organization. Yet another common behavioral approach is segmenting a market based on consumer levels and types of loyalty (Piercy, 1997). Parker and Stuart (1997) showed that soccer supporters in England showed remarkably high loyalty to their teams as compared to consumer loyalty in other industry sectors. While Parker and Stuart (1997) did not discuss loyalty as a means for market segmentation, copious research has been conducted in this area. From these studies, substantial empirical support indicates that this approach to market segmentation is particularly relevant in the spectator-sport context because consumer emotions play a significant role in product purchase decisions.

Still more researchers have attempted to use the four bases of segmentation (Mullin, et al., 2007) and provide effective methods for segmenting and targeting specific groups of sport consumers. These research studies put forth a variety of theories and frameworks that provide unique approaches to market segmentation. The most successful approaches to segmentation include a combination of the four bases of segmentation with a focus on the social and psychological traits of sport consumers. Stewart, Smith, and Nicholson (2003) describe the evolution of this literature and categorize the theories in three distinct groups. The researchers argue that market segmentation studies that have attempted to describe sport consumers have put forth dualistic, tiered, and multi-dimensional models of sport consumer typing. Stewart, et al. (2003) explain that dualistic models of sport consumer typing focus on contrasting one form of consumer behavior with its opposite. In three studies of English soccer fans

Clarke (1978), Boyle and Haynes (2000), and Nash (2000) argued that there are two types of English soccer fans. Clarke (1978) contrasted “genuine” fans with “others;” while, Boyle and Haynes (2000) classified fans as either “traditional” or “modern.” Similarly, Nash (2000) explained consumers of English soccer as “core” fans or “corporate” fans. These approaches attempt to model English soccer consumers as belonging in one of two opposite groups. As such, these studies segment sport consumers in a very rigid manner.

Tiered typologies broaden sport consumer type analysis (Stewart et. al., 2003). Wann and Branscombe (1993) developed the sport spectator identification scale (SSIS). The SSIS measures fan identification with a given spectator sport team. Their conclusions suggest that consumers of spectator sport fall on a continuum ranging from low identification to high identification. Mullin, Hardy, and Sutton (1993), Kahle, Kambra, and Rose (1996), and Clowes and Tapp (1999) came to similar conclusions when modeling spectator sport consumers. These three studies also placed spectator sport consumers on a continuum. Mullin et al. (1993) place sport consumers on a frequency escalator based on three consumption patterns: highly committed, moderately committed, and low commitment. Likewise, Kahle et. al. (1996) and Clowes and Tapp (1999) used three stage continuums to segment sport consumers. Mullin et. al. (1993), Kahle et. al. (1996), and Clowes and Tapp (1999) introduce sport consumer types that are more flexible than those presented in the dualistic models of sport consumer type. Wann and Branscombe (1993) introduced a survey instrument that traditionally views sport fans from a tiered perspective. Wann and Branscombe’s (1993) SSIS segments consumers on the basis of their social identification to a sport team as high, medium, or low in

identification, and it has been validated by numerous pieces of empirical evidence (Wann & Branscombe, 1990; Madrigal, 1995; Matsuoka, Chelladurai, & Harada, 2003; Theodorakis, Koustelios, Robinson, & Barlas, 2009).

Multidimensional typologies attempt to account for the multi-faceted nature of the sport consumer (Stewart et. al., 2003). Stewart et. al. (2003) argues that both dualistic and tiered models of sport consumers fail to capture all of the social and psychological factors that shape spectator sport consumer behavior. Holt (1995), Smith and Stewart (1999), Mahony, Madrigal, and Howard (2000), and Funk and James (2001) begin to capture the cognitive, behavioral, and affective components that constitute sport consumer type. Holt (1995) studied the way consumers of the Chicago Cubs viewed their purchase decisions according to subjective experiences, integrating of the team into their sense of self, and the use of the sport experience to classify their relationship with the team. Smith and Stewart (1999) explained sport consumers as belonging to one of five different consumer types based on their own attitudes and behaviors: passionate partisans, champ followers, reclusive partisans, theatergoers, and aficionados. Mahony et. al. (2000) took the same approach in developing their psychological commitment to team (PCT) scale. The PCT integrates cognitive, behavioral, and affective consumer traits to form another sport consumer continuum. This continuum contains four levels ranging from low loyalty to true loyalty (Mahony et. al., 2000). Finally, Funk and James (2001) developed a model that contains four distinct levels of team identification: awareness, attraction, attachment, and allegiance. They argue that sport consumers will move through these four levels as their level of identification with a team either increases or decreases. This model is of particular relevance to practitioners because it is both

consistent with traditional and sport marketing theory, and it illustrates where the marketing function can influence a consumer's level of identification. Multidimensional models of sport consumption behavior are said to paint a fuller picture of the spectator sport consumer (Stewart et. al., 2003), and Heere and James (2007) introduce a multidimensional model that attempts to bridge the gap between the PCT and the importance of team identification. However, the authors state that this scale should be regarded as the first attempt to develop a team identification scale that takes a multidimensional approach, and the scale requires further testing and refinement before it can be accepted as a valid and reliable measure of team identification.

### *Social Identity Theory*

Sport fans are unique in that they are more than simply consumers of a product or service. Heere and James (2007) state that sport fans can be described as a particular form of a social group that is defined by its psychological attachment to a sport team, and Wann and Branscombe (1990) argue that an individual's favored sports team provides ties with a larger social structure and a sense of belongingness in a society. These arguments use social identity theory to explain the unique nature of sport consumers.

Social identity theory states that an individual's self-concept is derived from his/her knowledge of belonging to a social group that has an emotional significance associated with membership in the group (Tajfel, 1978). Social identity theory explains the collective behaviors of social group members toward other distinct social groups, and states that in-group members will differentiate themselves from out-group members (Tajfel & Turner, 1979). The development of this theory led to a new perspective in the study of discrimination and stereotyping; furthermore, social identity theory has been

used to study a wide variety of group behavior contexts. Specifically, sport marketing researchers have used social identity theory to more fully explain sport consumer behavior by developing the concept of team identification.

### *Team Identification Theory*

While consumers of spectator-sport show typical consumption patterns and product purchase behaviors, they are also uniquely affected by an emotional involvement with the product that is not typically seen in other business sectors (Milne & McDonald, 1999; Mullin, Hardy, & Sutton, 2007). Mael and Ashforth (1992) argue that a sense of connectedness ensues when a consumer begins to identify with an organization. In a sport context, this connection is often called team identification. Team identification is defined as the personal commitment and emotional involvement customers have with a sport organization (Milne & McDonald, 1999). It follows that this strong emotional commitment leads to consumer loyalty to the organization with which a consumer identifies her or himself. As such, team identification is a critical construct that must be understood by sport marketers. Wann and Branscombe (1993) developed one of the first scales used to measure team identification (SSIS), and it has been used to help sport organizations better understand consumer attitudes. However, recent studies have used scales that measure, and apply, team identification as a predictor of consumer loyalty (Kwon, Trail, & Anderson, 2005). Milne and McDonald (1999) argue that because marketing efforts cannot directly affect team performance, fostering team identification becomes important in minimizing the effects on-field performance has on an organization's long-term financial success. While previous research has provided tools for measuring team identification and highlighted its importance to sport organizations,

little investigation has approached how to use team identification in marketing efforts. This study approaches team identification using market segmentation theory. The proposed research will measure team identification as a predictor of consumer loyalty. Additionally, four other scales will measure consumer perceptions of quality and satisfaction. Consumers will be segmented using according to their level of team identification and their unique attitudes and beliefs toward other customer satisfaction determinants will be studied in an effort to develop target marketing strategies based on the emotional attachment of consumers.

#### *Significance of the Study*

This study is significant because it is one of the first to examine the impact of core product quality on team identification, service quality, and customer satisfaction. It will fill a gap in the sport marketing literature by attempting to understand the impact core product quality has on the level of importance consumers place on the perceived quality of service personnel and the service environment. Also, this research investigates the potential causal relationship between core product quality and the development of team identification. Previous research has shown that team identification has an important relationship with customer satisfaction and influences behavioral intentions and consumer loyalty (Trail, et al., 2005 & Kwon, et al., 2005). This study will add to that body of literature.

The results of this research will better explain determinants of customer satisfaction in spectator sport across very unique consumer groups. It proposes a new theoretical model for understanding customer satisfaction in team sport. As such, this study not only adds to the sport marketing literature but market segmentation literature in

general. Additionally, this research will build on existing team identification theory. The proposed study seeks to better explain determinants of customer satisfaction. While team identification is a construct unique to spectator sport, the results of this research will provide evidence of the importance of emotional attachment to any organization in predicting satisfaction.

Furthermore, this study will provide the necessary evidence to develop market segmentation, and target marketing, strategies that will attempt to cause consumer action based on their psychological attachment to the organization. Practitioners will be able to use the information from this study to tailor marketing messages for different consumer groups. Specifically, they will be able to understand the most critical aspects of their organizations that lead to satisfied customers. Traditionally, a marketing staff will develop a unique message that is not only delivered to consumers via advertising but through direct contact with the organization's sales force. This interaction with an organization is the primary means for direct cash flow into the organization and as a result is a critical component of the marketing process. When used in conjunction with successful data-based marketing, the results of this study will allow marketers and sales forces to deliver the most relevant messages to consumers that can lead to a buying decision.

#### *Definition of Terms*

Throughout this study a number of specific terms will be used. Definitions for these terms are as follows:

*Customer satisfaction*: a post-choice, cognitive judgment connected to a particular purchase decision (Day, 1984).

*Service quality*: consumer perception of firm delivery of a desired service (Cronin & Taylor, 1993)

*Loyalty*: a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future despite marketing efforts having the potential to cause switching behavior (Oliver, 1999)

*Team identification*: the personal commitment and emotional involvement customers have with a sport organization (Milne & McDonald, 1999).

*Market segmentation*: the process of classifying customers into groups with different needs, characteristics, or behavior (Kotler, 1989).

*Target marketing*: evaluating each market segment's attractiveness and selecting one or more segments to enter (Kotler, 1989).

*Product*: anything that can be offered to a market for attention, acquisition, use or consumption that might satisfy a want or need (Kotler, 1989).

*Tangible product*: the physical good offered to the marketplace (Kotler, 1989)

*Augmented product*: additional benefits or services that make up a product consumption experience (Kotler, 1989).

*Core team sport product*: the actual event (Masteralexis, Barr, & Hums, 2009)

*Sportscape*: the spectator sport service environment (Wakefield, et al., 1996).

*Basking-in-reflected glory (BIRGing)*: a self-esteem related process that reflects an individual's desire to increase an association with a successful other (Wann & Branscombe, 1990).

*Cutting-off-reflected failure (CORFing)*: a self-esteem related process that reflects an individual's desire to decrease an association with an unsuccessful other (Wann & Branscombe, 1990).

*Disconfirmation*: a measure of how well the service level delivered matches customer expectations (Parasuraman, Zeithaml, & Berry, 1990).

### *Study Limitations*

This study has a number of limitations that should be addressed prior to a detailed discussion of its place within sport marketing literature. First, the participants in this study were fans of two NCAA Division I-Football Championship Subdivision (FCS) men's sports at the same institution. Any generalizations made from the results of this investigation should consider the limitation of the sample. This study also attempts to understand the impact core product quality has over customer satisfaction, team identification, and service quality. To do so, five scales were used. First, customer satisfaction was measured using Oliver's (1980) 3-item scale. Core product quality was measured using Zhang's (1997) 7-item scale. Next, team identification was measured using the team identification index (TII), and service quality was measured using the sportscape instrument (Wann & Branscombe, 1996) and Howat, et al.'s (1997) staff quality scale. It should be understood that all of these constructs may vary greatly as the context changes. For example, professional sport spectators may have different service experiences and may uniquely identify to their favorite sport teams. Therefore, it may be difficult to generalize the results of this study to professional sport.

Second, this study surveyed fans of two teams that were particularly unsuccessful in competition. The football team had not yet won a game prior to data collection, and the

basketball team was in last place in its conference standings. This limitation is particularly important because this lack of competitive success is directly measured by the core product quality assessment items in the questionnaire. It is possible that this variable could dramatically skew the data.

Another limitation in this study was the number of games that were allowed to be accessed. While the athletic department allowed surveys to be delivered at one football and one men's basketball game, the researcher's request to collect data at multiple games for each sport was not allowed. While the final sample size was sufficient for analysis, confirmatory factor analysis is a more reliable research method with large sample sizes (Kline, 2011). Additionally, the high number of observed variables in the study increases the need for a larger sample.

NCAA Division I-FCS is an under-researched area of sport marketing. There are numerous valid and reliable instruments available to measure team identification and service quality. The scales chosen for this study have been shown to be valid and reliable assessment tools in spectator sport contexts; however, the scales have not been tested in NCAA Division I-FCS athletics. It should be noted that there are other scales that could measure these constructs with the same accuracy. Further research would be needed to determine which scales are most appropriate for use in NCAA Division I-FCS athletics.

#### *Outline for Dissertation*

This research provides an overview of relevant topics in both traditional and sport marketing including customer satisfaction, social identification, service quality, and product quality. This study is significant in that it introduces a new theoretical model for understanding customer satisfaction in sport by bridging the gap between traditional

product and service marketing and marketing of sport. The study then tests the model in a collegiate athletics setting. Chapter I provided the background information and theoretical perspective of the investigation. Chapter II will review the relevant literature in more depth, and Chapter III will explain the research design and methodology. Chapter IV reports the results of the model tests, while Chapter V provides a detailed discussion of the results and their implications.

## CHAPTER II

### REVIEW OF LITERATURE

The following chapter reviews the key bodies of literature that form the foundation of this investigation. First, customer satisfaction and customer satisfaction in sport will be reviewed. Next, a new conceptualization of customer satisfaction in team sport will be introduced. The core product and core sport product will be discussed. Then, team identification theory will be examined. Finally, relevant service quality, and service quality in sport, studies will be reviewed. This chapter presents a comprehensive discussion of the theoretical framework of this study.

#### *Customer Satisfaction*

Managing customer satisfaction is one of the most important functions of ensuring the financial success of a firm (Reicheld, 1994). However, ensuring the satisfaction of an organization's consumers is a complicated task. As Oliver (1993) explains, customer satisfaction varies by individual and situation. In an effort to explain customer satisfaction Churchill and Surprenant (1982) provide one of the most important investigations into the determinants of customer satisfaction. It is argued that satisfaction is a major outcome of marketing activity and that profits are generated through the satisfaction of consumer wants and needs (Churchill & Surprenant, 1982). In their study, the researchers investigate the role of disconfirmation, expectations, and performance. Of critical importance to the proposed research, Churchill and Surprenant (1982) model the satisfaction process for two distinct types of products, durable and non-durable goods. The researchers find that satisfaction is different for the two different types of goods.

Specifically, the authors find that disconfirmation of expectations is an important intervening variable for customer satisfaction regarding non-durable goods. Conversely, they discover that satisfaction is solely effected by the performance of the durable good. This is important because the core product in the proposed study is a non-durable good, the sport game experience. This suggests that prior experience with the core product may influence the satisfaction process. Therefore, team identification may play a critical role in how consumers arrive at a satisfaction outcome.

### *Customer Satisfaction in Sport*

Since the research of Churchill and Surprenant (1982) and the subsequent expansion of that theory by Cronin and Taylor (1992), researchers have applied customer satisfaction theory to spectator sport in attempts to better understand the sport consumer. Theodorakis, Kambitsis, and Koutelious (2001) studied spectators at two professional basketball games in Greece in an attempt to examine the relationship between service quality and customer satisfaction. As defined by previous service marketing literature (Oliver, 1981; Parasuraman, et al., 1985; Lehtinen & Lehtinen, 1991; and Mackay & Crompton, 1988) customer satisfaction informs and, ultimately, creates, or fails create, service quality in the minds of consumers. The authors used SPORTSERV (Theodorakis & Kambitsis, 1998), a 22-item instrument, to measure service quality. SPORTSERV was developed as a performance-based theory instrument that would measure service quality in much the same way that SERVQUAL and TEAMQUAL do. SPORTSERV uses the same theoretical constructs, access, reliability, responsiveness, tangibles, and security to measure consumer perceptions. Primarily, SPORTSERV refines TEAMQUAL by removing the consumer expectation portion of the instrument thus implementing a

performance-based theory of service quality (Theodorakis & Kambitsis, 1998). The researchers then used a single item to measure overall satisfaction with the service environment. The study found that respondents rated two dimensions, tangibles and access, as satisfactory; the remaining three dimensions rated poorly (Theodorakis, et al., 2001). The researchers also found that all five dimensions significantly correlated to customer satisfaction. As such, a multiple regression was conducted to the predictive nature each construct exhibited toward customer satisfaction. Results of the regression analysis indicate that reliability and tangibles showed the most predictive influence on customer satisfaction (Theodorakis, et al., 2001). Overall, Theodorakis, et al. (2001) found that spectators were relatively satisfied. However, the authors note that the summary of their findings suggest that the organizations in question have significant work to do to improve service quality and customer satisfaction.

Greenwell, Fink, and Pastore (2002) took the next step in measuring the impact that service quality has on customer satisfaction. This study took a new approach by using hierarchical regression in an attempt to predict customer satisfaction using the core product, physical facility, and service personnel as predictor variables. Greenwell, et al., (2002) combined a number of reliable instruments from service marketing literature to create a new of explaining, and evaluating, customer satisfaction in spectator sport. First, Greenwell, et al., (2002) acknowledges that the multifaceted nature of the spectator sport experience leads to a number of different targets of quality (Chelladurai & Chang, 2000). From this theoretical perspective, the researchers separate the physical facility, service personnel, and core product from one another in their regression equations. The authors define the core sport product by stating that it is the central product or service resulting in

the overall service experience (Mullin, Hardy, & Sutton, 2000). To measure satisfaction with the core product Greenwell, et al. (2002) uses items from Zhang, Pease, Smith, Lee, Lam, and Jambor's (1997) scale that measures consumer decision making intentions of minor league hockey spectators. Quality of the physical facility is measured using five subscales of the sportscape scale developed by Wakefield, et al. (1996). The overall quality of service personnel was measured using a four-item staff quality scale (Howat, Absher, Crilley, & Milne, 1996), and customer satisfaction was measured using an often used three-item scale from the service marketing literature (Oliver, 1980). Greenwell, et al.'s (2002) regression analysis revealed that most variables received a good rating from the 218 minor league hockey consumers surveyed, and that all three components of the sport service experience are predictive of attendance. The primary purpose of this article was to evaluate the role the physical facility played in influencing spectator attendance (Greenwell, et al., 2002). Consistent with Hill and Green (2000), Greenwell, et al. (2002) found that the physical facility as a whole was predictive of customer satisfaction. However, the only specific facility item that was significant was the quality of the arena's scoreboard. Greenwell, et al. (2002) concede that this study was ultimately concerned with organizational factors influencing spectator attends, and as such, further research is needed to account for the role personal consumer characteristics plays in spectator attendance behavior.

Yoshida and James (2010) argue that there is a gap in the existing sport customer satisfaction literature by explaining that previous research has focused on spectator sport satisfaction as either satisfaction with the game experience or satisfaction with the service experience. The authors developed a conceptual model of satisfaction and behavioral

intention in spectator sport then tested the model with data from a Japanese professional baseball game and a NCAA Division I-Football Bowl Subdivision game. Yoshida and James's (2010) conceptual model argues that service quality directly influences satisfaction with the service experience and that core product quality directly influences satisfaction with the game experience. Then, they suggest that these two separate forms of satisfaction combine to influence behavioral intentions to re-purchase tickets to the home team's games (Yoshida & James, 2010). The results of their study indicate that core product and service quality influence customer satisfaction, and in turn, customer satisfaction influences behavioral intentions. Yoshida and James's (2010) model provides a foundation for the present investigation; however, this study does not view customer satisfaction as a dichotomous construct in spectator sport. Instead, this research theorizes that customer satisfaction is a single construct that is influenced by both core product and service quality.

#### *Conceptualizing Customer Satisfaction in Team Sport*

Van Leeuwen, Quick, and Daniel (2002) argue that the sport marketing literature indicates an evolution in the understanding of how customer satisfaction is achieved for spectators at team sporting events. In service industries, it is accepted that service quality is the most important factor that influences customer satisfaction. As a result, traditional models of customer satisfaction have attempted to explain that relationship. Parasuraman (1985) argued that service quality is represented by a difference between prior quality expectations and perceived quality performance. This expectation-performance difference is commonly called the gap theory. Patterson (1993) and McCollough, et. al. (2000) used the gap theory in describing the causal relationship service quality has with customer

satisfaction. This relationship is theoretically referred to as the disconfirmation of expectations model (DEM). The DEM states that consumers approach purchase decisions with specific quality expectations. Then, following a consumption experience that person independently perceives the quality that has been delivered. Patterson (1993) and McCollough, et al. (2000) then state that the difference between these expectations and perceived quality, disconfirmation, lead to satisfaction evaluations. Figure 1 is a visual representation of the DEM.

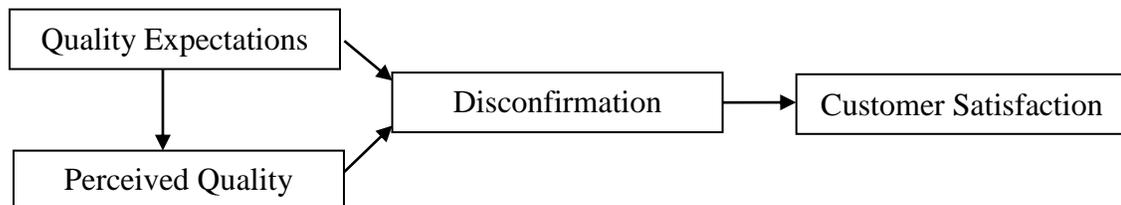


Figure 2.1 DEM

Jayanti and Jackson (1991) expanded the DEM by arguing that two other important relationships existed among the constructs of the DEM. Specifically, these authors argued that both quality expectations and perceived quality have a direct relationship with customer satisfaction. This suggests that the constructs that create disconfirmation are even more important than previously suggested by Patterson (1993) and McCollough, et al. (2000). The extended DEM is represented in Figure 2.2

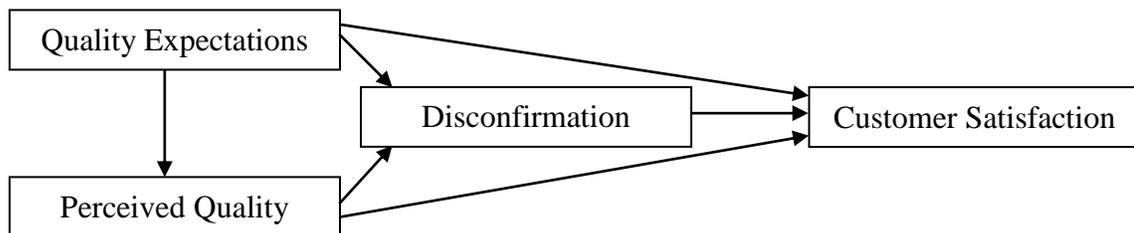


Figure 2.2 Extended DEM

McDonald, et al. (1995) adopted the extended DEM by arguing for the use of, then adapting, Parasuraman's (1988) SERVQUAL scale for use in team sport settings.

SERVQUAL is an instrument that measures service quality in accordance with the gap theory. McDonald, et al.'s (1995) alteration of SERVQUAL for use in team sport was called TEAMQUAL. TEAMQUAL is an instrument that is designed to uniquely measure the expectation-performance gap in team sport settings. It focuses on the variety of interactions a spectator would have throughout the team sport service environment. However, numerous researchers have shown that the unique nature of team sport includes other constructs that influence customer satisfaction. The two most important of those constructs are team identification and the win/loss phenomenon (Mullin, 1985). With this in mind, Van Leeuwen, et al. (2002) argue that the sport marketing literature suggests a further expanded version of the extended DEM. This expanded model includes team identification and the win/loss phenomenon and is shown in Figure 2.3. Figure 2.3 represents an important advance in the development of team sport customer satisfaction theory.

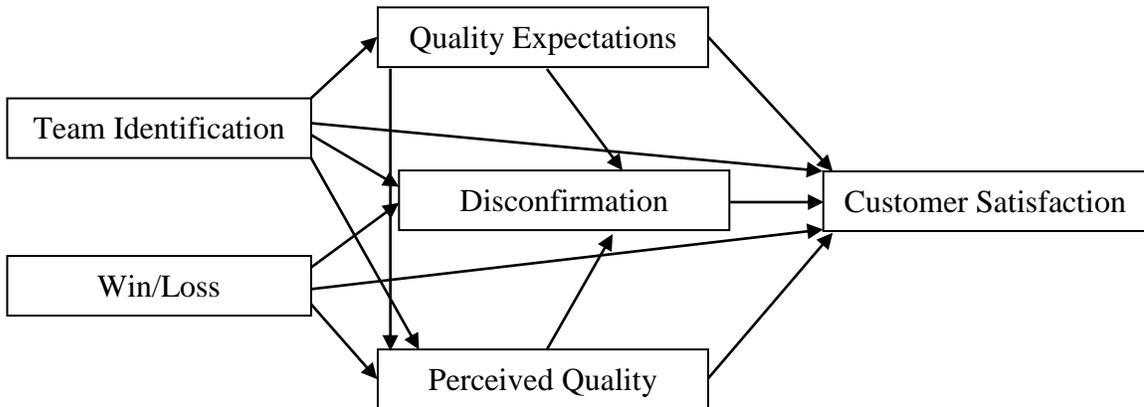


Figure 2.3 Second Extended DEM

Empirical evidence shows that team identification and team quality must be included in any satisfaction model (Yusof, See, & Yusof, 2008). Van Leeuwen, et al. (2002) add further to this theory by arguing that the team sport environment consists of

more than just the peripheral services discussed when measuring a consumer's interaction with the service environment. The complex nature of attending a team sport event yields an experience that includes a bundle of tangible products, intangible products, and service encounters. Van Leeuwen, et. al. (2002) argue that those tangible and intangible products also influence customer satisfaction. They suggest that their model, the spectator sport satisfaction model (SSSM), encompasses all of the unique features of team sport consumption while maintaining the integrity of the extended DEM (Van Leeuwen, et. al., 2002). The SSSM, represented in Figure 2.4, is a complex model that is meant to represent the critical constructs of team sport satisfaction.

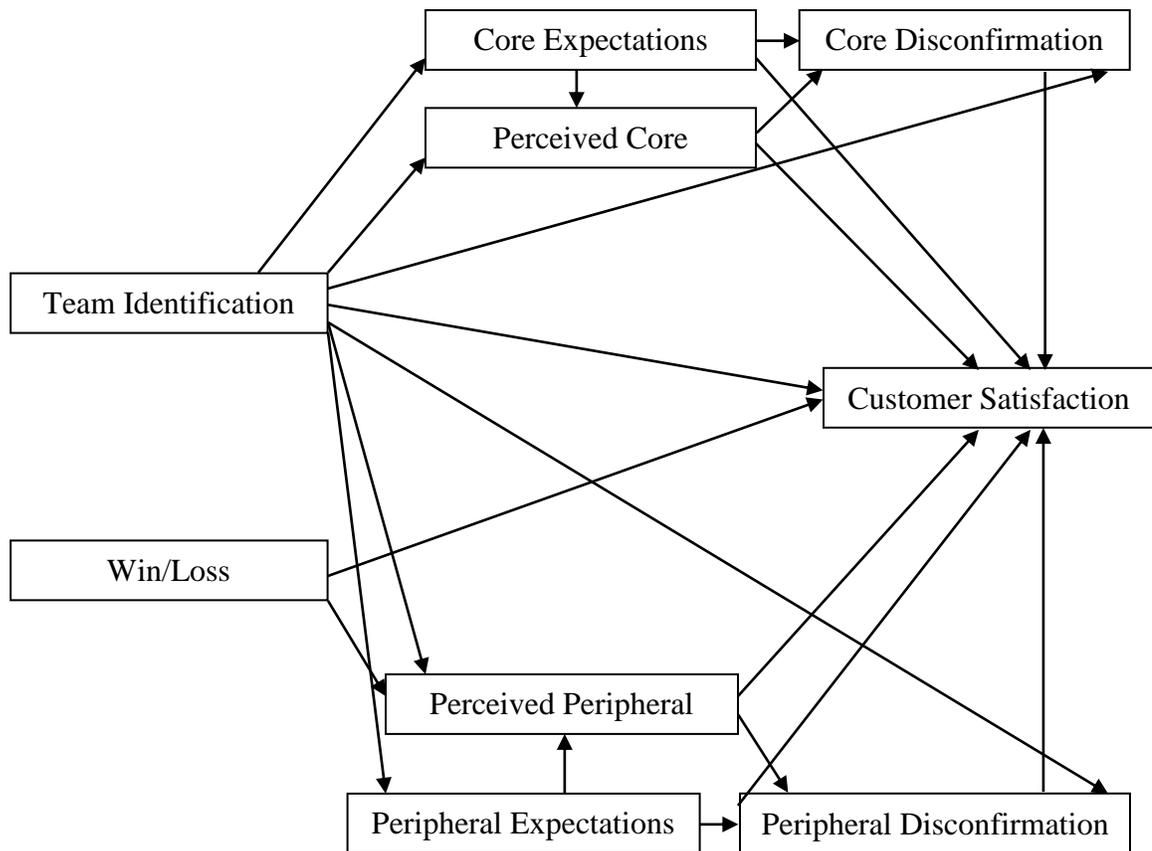


Figure 2.4 Spectator Sport Satisfaction Model

Importantly, the SSSM advances satisfaction theory by including core product quality as an influential construct. However, the continued reliance on the gap theory of service quality creates an unnecessarily cumbersome description of a critical consumer process. As Cronin and Taylor (1995) argue, the gap theory of service quality does not accurately represent the cognitive consumer process that arrives at quality evaluations. Instead, consumers simply perceive quality. Even if a consumer has previous experience in the same service environment, that previous experience does not influence that consumer's evaluation of a new service encounter. A team sport spectator may compare a previous encounter with a more recent one, but that does not mean the previous encounter was influential as the gap theory would indicate. This study argues that a new model of team sport customer satisfaction is needed that includes the more appropriate perceived quality theory. Applying the perceived quality theory to theories of customer satisfaction in team sports results in a more parsimonious, and accurate, description of satisfaction. Figure 5 represents the new team customer satisfaction model (TCSM).

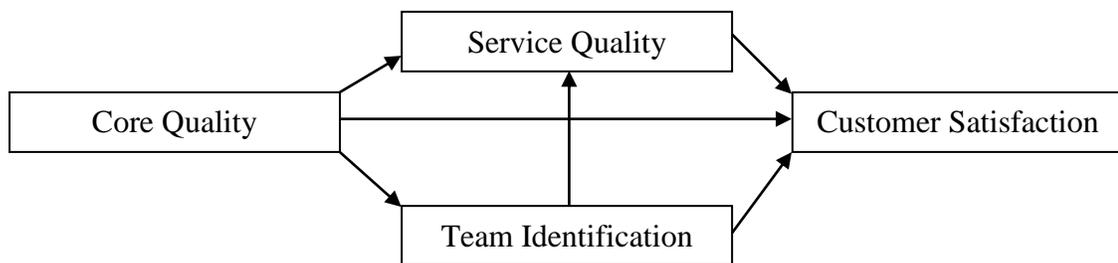


Figure 2.5 Proposed TCSM

In addition to moving beyond the gap theory the TCSM makes two changes to the SSSM. First, the SSSM represents core product quality and the win/loss phenomenon as distinct constructs. However, a team's success is a significant part of the quality of the core product, the team sport experience. Therefore, this study suggests that core product

quality includes the win/loss phenomenon. Second, this investigation views team identification according to its frequent application as a unique expression of loyalty. Core product quality is commonly regarded as a critical construct in the development of consumer loyalty (Kotler, 1989 and Oliver, 1993). Since, the team sport experience includes both product and service components, and team identification can be viewed as a unique expression of loyalty, this investigation argues that core product quality has an influential relationship in the development of team identification. The TCSM, shown in Figure 2.5, describes customer satisfaction in accordance with current service quality, product quality, and team identification theory.

#### *The Core Product*

In product, or goods, based industries, consumer perceptions of the core product form the foundation of customer satisfaction. Kotler (1989) defines a product as “anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need.” This definition has widely been accepted and applied as the traditional definition for the term. However, this simplistic definition is further explored by Kotler (1989). He explains that products should be viewed on three levels: core product, actual product, and augmented product. Core product, Kotler (1989) describes, answers the question: “what is the buyer really buying?” Products are often described as packages of problem-solving services, and marketers must determine the benefits that a consumer seeks through the purchase of a particular product. That specific benefit represents the core product. The actual product includes the tangible components of the consumption experiences. Specifically, product features, style, brand name, packaging, and quality level are characteristics of the actual product (Kotler, 1989).

Finally, the augmented product is represented by the additional services, and benefits, which the marketer may offer in order to enhance the competitiveness of his/her overall product in the marketplace. This bundled conceptualization of product, and its overall inclusiveness of extensions beyond the core benefit sought, leads to an intersection of product and service marketing in industry sectors that possess wide varieties of different products, in the broadest sense, and service delivery methods. For example, hotels provide a specific core benefit to consumers, a place to sleep. However, this core benefit is only experienced by a consumer through a complex system of actual product consumption, augmented product consumption, and service interactions. Furthermore, each component of this system carries with it its own core benefit of consumption. This interconnected web of tangible goods and intangible services influences the way consumer perceive a “product” and researchers investigate those perceptions. The American Marketing Association (AMA) states the following as further evidence of the complex nature of the term “product:”

[A] product may be an idea, a physical entity (a good), or a service, or any combination of the three. It exists for the purpose of exchange in the satisfaction of individual and organizational objectives. Occasional usage today implies a definition of product as that bundle of attributes for which the exchange or use primarily concerns the physical or tangible form, in contrast to a service, in which the seller, buyer, or user is primarily interested in the intangible. Though to speak of "products" and "services" is convenient, it leaves us without a term to apply to the set of the two combined. The term for tangible products is goods, and it should be used with services to make the tangible/intangible pair, as subsets of the term product (American Marketing Association).

This commentary highlights the difficulty of defining the term product in any industry in which tangible and intangible features influence consumer perceptions and industry

standards. The implications of this challenge are varied conceptualizations of what the core product actually is in a business sector with these traits. These diverse conceptualizations serve to influence the way researchers seek to measure consumer perceptions of, and psychological attachments to, an organization and its core product offering. Spectator-sport is precisely the type of industry where this issue is prevalent.

### *Conceptualizing the Sport Product*

As with the hotel industry, spectator-sport is a complex bundle of tangible goods and intangible services. Mullin, Hardy, and Sutton (2007) agree with the AMA, that a product is any bundle or combination of qualities, processes, and capabilities that a buyer expects will deliver want satisfaction. They further describe the unique nature of the sport product from this theoretical lens. Mullin, et al. (2007) explain that the sport product consists of a three components: the specific sport form, generic sport form, and core benefit. The specific sport form includes the common names that we use in identifying a sport. For example, hockey, baseball, and basketball would all be categorized as specific sport forms. The generic sport form describes the unique features that constitute each of these specific sport forms. Each specific sport form carries with it different rules, equipment, facilities, and physical skills in order to participate in the game. These distinct components make up the generic sport form. Finally, the core benefit consists of the reason a person consumes the sport product. Mullin, et al. (2007) state that health, entertainment, sociability, and achievement can all be core benefits sought by a sport consumer. Masteralexis, Barr, and Hums (2009) agree that the sport product consists of a bundle of unique benefits. However, they specifically define the core spectator sport product as the actual event on the playing surface. Mullin, et al.'s (2007) description of

the sport product is important to note, and it is particularly relevant as it pertains to utilizing marketing techniques to highlight Kotler's (1986) actual and augmented products. However, this investigation is most concerned with answering the question Kotler (1986) poses in reference to the core product: what is the consumer actually buying? Therefore, Masteralexis, et al.'s definition is the most appropriate working definition for this study.

### *Team Identification*

Team identification is the personal commitment and emotional involvement customers have with a sport organization (Milne & McDonald, 1999). This emotional attachment is unique to team sports. An individual's identification to a sport team influences a variety of purchase intentions. Team identification affects an individual's consumption of the core sport product and its product extensions. While team identification is a construct that measures the way a person socially identifies with a sport team (Wann & Branscombe, 1993), it is now more often studied as a variable that causes consumer loyalty (Kwon, et al., 2005). This facilitation of consumer loyalty is critical to understanding customer satisfaction in team sports.

Team identification has been well-researched in the sport marketing literature. However, the precise terminology used tends to differ. Van Leeuwen, Quick, and Daniel. (2002) called consumer attachment to a sport team "club identification," and Sutton, McDonald, Milne, and Cimperman. (1997) used the term "fan identification." Kwon and Armstrong (2004) describe team identification strictly as "psychological attachment." While these researchers all use different terminology, their approaches to sport consumer psychological attachment are essentially the same. They all argue that psychological

attachment to a sport team influences various aspects of sport consumer behavior (Wann & Branscombe, 1993; Van Leeuwen, et al., 2002; Sutton, et al., 1997; Kwon & Armstrong, 2004). In this rich body of literature, a number of researchers have worked to further explain team identification and provide reliable instruments for measuring the construct (Wann & Branscombe, 1990; Wann & Branscombe, 1993; Sutton, McDonald, Milne, & Cimperman, 1997). Yet other researchers have recognized the value of team identification as a key variable in explaining sport consumer behavior (Madrigal, 1995; Van Leeuwen, et al., 2002; Fink, Trail, & Anderson, 2002; Gwinner & Swanson, 2003; Matsouka, Chelladurai, & Harada, 2003; Theodorakis, et al., 2009). These studies attempt to understand the effects a consumer's personal identification with a sport team has on his or her perceptions and actions. Following is a review of those key studies.

Wann and Branscombe (1993) introduce one of the first instruments specifically designed to measure team identification by developing a sport spectator identification scale (SSIS). The SSIS is meant to measure the intensity of a sport fan's relationship with a given team. This instrument relies on behavioral, affective, and cognitive reactions of sport spectators in an attempt to validate the hypothesis that team identification mediates fan reaction. Wann and Branscombe (1993) collected data from 188 undergraduate students. Respondents completed a 7-item questionnaire designed to measure their identification with the University of Kansas men's basketball team (KU basketball). The 7-items in the questionnaire were rated on an 8-point scale with anchors dependent on the questionnaire item. The 7-items are as follows: 1) How important is it to you that the K.U. basketball team wins? 2) How strongly do you see yourself as a fan of the K.U. basketball team? 3) How strongly do your friends see you as a fan of the

K.U. basketball team? 4) During the season, how closely do you follow the K.U. basketball team via any of the following: a) in person or on television, b) on the radio, c) televised news or newspaper? 5) How important is being a fan of K.U. basketball to you? 6) How much do you dislike K.U. basketball's greatest rivals? 7) How often do you display the K.U. basketball team's name or insignia at your place of work, where you live, or on your clothing? (Wann & Branscombe, 1990) From these data the authors conclude that the more highly identified a person is with his or her sports team the more involved that person will be with that team. Specifically, highly identified fans will show more ego-enhancing patterns of attribution to the sport team, have more positive expectations of future team performance, and show greater willingness to invest time and financial resources in the team and its extensions than moderate or low identified fans. The same holds true for moderate identified fans when compared to low identified fans (Wann & Branscombe (1993). This study suggests that sport consumer team identification exists on a continuum from low identification to high identification, and it provides the first testable instrument for measuring fan identification.

Wann and Branscombe (1990) test the SSIS by extending the conversation of team identification and bridging the gap between human psychology and sport consumer behavior. The authors use Cialdini, et al. (1976) to frame their theoretical perspective. Cialdini, et al. (1976) studied university student behavior on days following college football games. Specifically, Cialdini, et al. (1976) researched student behavior at seven institutions on the Monday following a Saturday football game. The researchers found that students tended to wear school identifying apparel significantly more often following a win by the university football team. A second stage of this study then collected data

from conversations with students regarding university football games. Cialdini, et al. (1976) found that when students discussed winning outcomes they often referred to the football team as “we.” Conversely, when students were asked about losing contests it was more often that the football team was described as “them.” Cialdini, et al. (1976) conclude that individuals desire affiliation with successful others and prefer distance from the unsuccessful. Wann and Branscombe (1990) discuss these two behaviors as basking-in-reflected-glory (BIRGing) and cutting-off-reflected-failure (CORFing). However, while Wann and Branscombe (1990) agree with Cialdini, et al. (1976) and other subsequent studies of BIRGing and CORFing behavior, they postulate that people only BIRG when a group is moderately important to their self-identity. Additionally, Wann and Branscombe (1990) theorize that people will CORF with groups that are important to their self-identity, but the more highly identified a person is with a given group, the less likely they are to CORF.

To examine BIRGing and CORFing behavior, Wann and Branscombe (1990) studied a sample of 208 undergraduate psychology students at the University of Kansas. The researchers used a 2x3x2 mixed factorial design to measure sex, level of identification with KU basketball, and BIRGing or CORFing behavior. Respondents completed a 7-item questionnaire to measure their levels of identification (Wann & Branscombe, 1993) with KU basketball. Based on the scores from the team identification questionnaire, respondents were classified as low, moderate, or high identified fans. The authors report mean identification scores for the three groups to be 4.64 (low), 6.36 (moderate), and 7.46 (high). These differences are statistically reliable ( $F(2,187) = 272.4$ ,  $p < .0001$ ) and allow the authors to test their identification hypotheses. Wann and

Branscombe (1990) used two items to measure BIRGing and CORFing tendencies. As expected, the authors found negative correlation between the two measures ( $r = -.23$ ,  $p < .001$ ). From their mixed factorial design, Wann and Branscombe (1990) found that sex was not a significant variable in any of the relationships examined. Additionally, an overall main effect suggests that fans are more likely to enjoy the team when they are successful. The researchers found a linear relationship between fan identification level and BIRGing. Specifically, low identified fans were less likely than moderate identified fans to BIRG. Likewise, moderate identified fans were less likely to BIRG than high identified fans (Wann & Branscombe, 1990). A similar linear relationship was found with respect to CORFing. Low identified fans were more likely to CORF than moderate identified fans, and moderate identified fans were more likely to CORF than high identified fans. These results clearly support Wann and Branscombe's (1990) primary hypotheses that team identification moderates BIRGing and CORFing behavior. Wann and Branscombe (1990) argue that the primary significance of this study is that it has implications concerning self-esteem; however, for the purposes of this research the study's confirmation of the reliability of the sport spectator identification scale is of most importance.

Sutton, McDonald, Milne, and Cimperman (1997) advance the team identification literature by providing a conceptual framework of fan identification, levels of motivation, and benefits of identification. The authors present a normative model to create and foster fan identification. They review social identification theory and then discuss the characteristics that lead to fan identification. First, Sutton, et al. (1997) describe the levels of fan identification in detail. Sutton, et al. (1997) states that there are three

distinct levels of fan identification. First, there are low identified fans. These fans, also called social fans, are described as having a passive, long-term relationship with a sport team. Social fans exhibit low emotional, financial, and involvement characteristics with the team; however, a definite relationship with the team is present (Sutton, et al., 1997). Second, medium identified fans, focused fans, have an association with a team based upon particular attributes they find attractive. For example, focused fans tend to be high achievement seeking fans. They are more likely to display emotion and invest financially in the team. This emotional and financial investment can either lead to an increased level of identification with the team, or it can fall victim to the same fate as a fad. Often, focused fans will lose identification, and stop displaying emotional and financial investment in the team, if a specific player leaves the team or team performance drops (Sutton, et al., 1997). Third, vested fans have high identification with the team. The authors suggest that vested fans are the most loyal and have the longest lasting relationships with at team. Vested fans invest their time, emotions, and finances heavily in the team, and they often view their team as an extension of their community. Sutton, et al. (1997) argues that social, focused, and vested fans represent the three types of fan identification. Following their explanation of the various levels of fan identification, Sutton, et al. (1997) apply social identification theory to spectator sport.

Sutton, et al. (1997) frame their conceptual model within a theory of social identity argued for by Bhattacharya (1995). Bhattacharya (1995) relates member identification with a group using organizational and product characteristics, affiliation characteristics, and activity characteristics. Sutton, et al. (1997) argue that these three broad factors can be adjusted and subsequently explain fan identification. The authors

state that there are four managerial factors that influence fan identification with a sport team. Team, organizational, affiliation, and activity characteristics ultimately influence a consumer's identification with a sports team. Sutton, et al. (1997) further states that these four characteristics are under the direct control of organization management. As such, fan identification becomes a controllable variable for sport marketers.

Following this application of Bhattacharya's (1995) model to spectator sport, Sutton, et al. (1997) explain the managerial benefits of fan identification among sport consumers and suggest strategies for developing identification with the team. Specifically, the authors argue that increased fan identification can lead to decreased price sensitivity and decreased performance outcome sensitivity (Sutton, et al., 1997). Thus, these managerial benefits would result in increased overall satisfaction and loyalty. Sutton, et al. (1997) then suggest that sport marketers should work to develop fan identification using four controllable features of the organization. First, marketers should increase team and player accessibility to the public. Second, community involvement activities need to be increased. Third, management should market the team's history and tradition; and finally, marketers should create opportunities for group affiliation and participation (Sutton, et al., 1997). It is theorized that these four strategies can help increase fan identification.

Wann and Branscombe (1990), Wann and Branscome (1993), and Sutton, et al. (1997) propose various frameworks and instruments for understanding and measuring fan identification. These studies provide the foundation for a rich body of literature examining team identification and its role in shaping the sport consumer. Numerous

researchers have used these team identification constructs, and measures, to better frame sport consumer inquiry and better understand sport consumer behavior as a whole.

Madrigal (1995) uses team identification in developing a structural model of fan satisfaction. Madrigal's (1995) model tests the relationship between three cognitive antecedents and two affective states. The hypothesized model begins with expected main effects of expectancy-disconfirmation, team identification, and quality of opponent on BIRGing and enjoyment. While BIRGing and team identification have been defined in this paper, Madrigal (1995) defines the cognitive antecedent, expectancy-disconfirmation. He states that expectancy-disconfirmation refers to as the extent to which satisfaction outcomes match expectations. The second stage of the model indicates direct effects of BIRGing and enjoyment on satisfaction. Consequently, the model suggests indirect effects of expectancy-disconfirmation, team identification, and quality of opponent on satisfaction. To test this model, data were collected from 232 spectators attending NCAA Division I women's basketball games. Data were collected in two stages. Participants first completed a short pre-game questionnaire that measured team identification, experience with the team, and demographics. Then participants completed a second questionnaire immediately following the game that included scales measuring expectancy-disconfirmation, emotional reaction to the game, BIRGing, and satisfaction with the decision to attend the game. Madrigal (1995) relies on Wann and Branscombe's (1993) 9-item team identification scale to access this construct. Madrigal (1995) then summed the 9-items according to two summary measures, personal identification with the team and media usage, to better address his research questions. He analyzed the data using path analysis with manifest and latent variables. Madrigal (1995)

uses three statistical tests, root-mean-square-error of approximation (RMSEA), chi-square, and expected cross-validation index (ECVI), to measure the fit of three competing models. Overall, Madrigal (1995) found that respondents tended to be highly identified with the basketball team in the study. Also, he found that, based on the RMSEA, chi-square, and ECVI statistics, the best fit model was representative of the hypothesized model. That is to say, that the best fitting model is one in which expectancy-disconfirmation, team identification, and quality of opponent are cognitive antecedents to enjoyment and BIRGing. Also, the best fitting model shows direct effects of BIRGing and enjoyment on satisfaction. Madrigal (1995) acknowledges that there is a significant difference from the best fitting model and the saturated model. This suggests that the overall model could be improved to better fit the data. This study supports previous empirical evidence from Wann and Branscombe (1990) that team identification influences BIRGing. More importantly, Madrigal (1995) found that of the cognitive antecedents tested team identification was the most influential in effecting both BIRGing and enjoyment. Consequently, team identification has the strongest indirect effect on customer satisfaction.

Van Leeuwen, Quick, and Daniel (2002) develop a sport spectator satisfaction model (SSSM) that incorporates team identification. The SSSM is a customer satisfaction model that is an extension of the disconfirmation of expectations model (DEM) argued for by many customer satisfaction researchers (McCollough, et al., 2000; Patterson, 1993). Van Leeuwen, et al. (2002) explain that the original DEM indicates that consumers determine satisfaction based on a comparison between expectations of product performance and actual experience of product performance. Negative

disconfirmation occurs when a product fails to meet consumer expectations. Confirmation occurs when a product meets, or exceeds, consumer expectations of product performance (Van Leeuwen, et al. 2002). While conceptually similar to gap model theories of service quality, the DEM measures actual customer satisfaction outcomes not perceived quality of service. Following numerous investigations of the theory proposed by the DEM, researchers developed an extension to the original model. This extension not only incorporates the original relationships between perceived product performance, expected product performance, and customer satisfaction. Additionally, three new relationships, expectations with customer satisfaction, expectations with perceived performance, and perceived performance with customer satisfaction were defined. The extended DEM is used in the development of SSSI (Van Leeuwen, et al., 2002). In addition to the relationships described in the extended DEM, Van Leeuwen, et al. (2002) add two unique features of spectator sport. The researchers explain that team performance, termed the win-loss phenomenon, has direct relationships with disconfirmation, perceived product performance, and customer satisfaction. As such, team performance can directly effect those three constructs.

Van Leeuwen, et al. (2002) also recognizes the importance of fan identification. As a result, club identification is described as having direct relationships with expectations, perceived performance, disconfirmation, and customer satisfaction. The authors cite previous fan identification literature to justify each of these relationships. Specifically, they highlight Wann and Branscombe (1993) and Wann and Dolan (1994) as providers of empirical evidence that show a positive relationship between fan identification and consumer expectations. Van Leeuwen, et al. (2002) also suggests that

the results of these studies indicate that highly identified fans are more likely to rate perceived performance more favorably. Next, the authors rely on existing social identity theory (Bhattacharya, et al., 1995) to explain that individuals highly identified with a group are more motivated to indicate the group has lived up to expectations. This argument suggests that a direct relationship exists between fan identification and disconfirmation. Additionally, Van Leeuwen, et al. (2002) state that Madrigal's (1995) study provides the empirical support necessary to conclude that a direct relationship exists between fan identification and customer satisfaction. In providing a unique model for describing sport consumer satisfaction, Van Leeuwen, et al. (2002) reaffirm the importance of fan identification as a critical determinant of sport consumer behavior.

Fink, Trail, and Anderson (2002) attempt to better understand team identification by examining eight motives for consumption of the spectator sport product. They then use these motives to determine variance in fan identification. Fink, et al. (2002) acknowledges that team identification is a strong predictor of consumption behavior. In fact, they argue that team identification is one of the most important variables a sport team must foster because it is vital to economic success (Fink, et al., 2002). Based on previous sport consumer behavior research, Fink, et al. (2002) identify vicarious achievement, acquisition of knowledge, aesthetics, social interaction, drama/excitement, escape, family, and quality of physical skill of participants as the eight motives of sport consumption (Trail, Fink, & Anderson, 2000) that may influence team identification. In order to the relationships between these eight motives and team identification, Fink, et al. (2002) collected data from two intercollegiate basketball games. The 364 respondents completed a questionnaire that included the Motivation Scale for Sport Consumption

(MSSC) and Team Identification Index (TII). The MSSC was developed and tested by Trail and James (2001). Fink, et al. (2002) state that the MSSC showed good construct validity and reliability with alpha coefficients ranging from .82 to .93 for the eight motives included. The TII is a three-item instrument designed to measure team identification. The researchers also indicate that the TII showed good reliability with a high Cronbach's alpha of .88. Three structural equations were modeled, and each model had paths from the eight motives directly to team identification. One model included all data, while the second and third models contained female or male data respectively. Fink, et al. (2002) also use RMSEA and chi-square analysis to measure fit. Additionally, they conducted the test of close fit to ensure model fit. The authors first used confirmatory factor analysis to examine correlations among all the motives and team identification. They found that all motives, except family, were significantly correlated to one-another and team identification. These results indicate that seven of the motives tested are significantly correlated to team identification. However, the motive showing the most influence appears to be vicarious achievement (Fink, et al., 2002). This finding is supported by previous research that shows team identification as a key factor in BIRGing (Wann & Branscombe, 1990). Additionally this study reiterates the importance of team identification in explaining sport consumption behavior.

Gwinner and Swanson (2003) use fan identification to better understand sport sponsorship outcomes. Specifically, the researchers measure the impact fan identification has on sponsor recognition, attitude toward the sponsor, sponsor patronage, and satisfaction with the sponsor. Gwinner and Swanson (2003) explain that sponsorship research has begun to suggest that investment in a sport sponsorship may not be an

efficient use of organizational resources. In fact, long-term consumer recall of event title sponsors often fails to meet organizational goals (Graham, 1998). Additionally, an increasingly cluttered sponsorship marketplace has caused a lessened effectiveness of sport sponsorships. However, Gwinner and Swanson (2003) hypothesize that key sponsorship outcomes are affected by a consumer's level of fan identification. The researchers develop a model to test this hypothesis. Gwinner and Swanson (2003) collected data for their study at a NCAA Division I-Football Bowl Subdivision (FBS) football game. Their data collection resulted in a samples size of 881 consumers. The researchers distributed surveys prior to the game in areas that were designated for home team supporters (Gwinner & Swanson, 2003). No further information is given regarding data collection procedures suggesting some weakness regarding internal validity. First, Gwinner and Swanson (2003) reexamine three antecedents to fan identification. These antecedents, prestige, domain involvement, and number of attachments, are theorized to have unique relationships with sponsorship outcomes. Next, the researchers measure fan identification using Mael and Ashforth's (1992) six-item identification measure. Then, Gwinner and Swanson (2003) asked respondents to circle the names of companies, from a list of 12, which they thought were sponsors of the team. This list included six actual sponsors and six non-sponsors that directly compete with the sponsoring firms. Finally, respondents were asked to complete a three-item measure that overall impressions of sponsoring firms. Gwinner and Swanson (2003) used CFA to test the validity and unidimensionality of the scales included in the questionnaire. They found that all of the factor loading exceeded 0.68 and were statistically significant ( $p < .0001$ ) indicating evidence of convergent validity. The authors also examined the variance inflation factor

(VIF) to test for multicollinearity in the data. Find that the VIF values were 1.08 or less, Gwinner and Swanson (2003) determined multicollinearity was not a concern. From this questionnaire, the study found that all of the hypothesized paths were supported by the structural model. Specifically, team identification significantly correlated with all four sponsorship outcomes with standardized path coefficients of 0.12, 0.44, 0.61, and 0.33 respectively (Gwinner & Swanson, 2003). These results suggest that team identification has a significant impact on desired sponsorship outcomes; therefore, confirming fan identification as an important construct to both sport organizations and prospective sponsors.

Matsouka, et al. (2003) re-examined the role team identification plays in effecting customer satisfaction and intent to re-purchase. This study, while similar to Van Leeuwen, et al. (2002), extends understanding of team identification as a customer satisfaction determinant. Matsuoka, et al. (2003) collected data from six Japanese professional football (soccer) games. A total usable sample of 1,256 responses was obtained for analysis. Respondents were surveyed using items that measured team identification, customer satisfaction, and future purchase intention. Matsuoka, et al. (2003) used a modified version of the SSSI (Wann & Branscombe, 1993) to measure team identification. The SSSI was modified to account for cultural differences, and the final instrument included eight items. The researchers then used these three content areas to create a structural model explaining the relationships among them. After using CFA to ensure adequacy of the model, Matsuoka, et al. (2003) conducted six hierarchical regression analyses. This method allows the researchers to make comparisons among variables alone and in the presence of the other variable sets. Matsuoka, et al. (2003)

found a highly significant correlation between team identification and intent to repurchase ( $p < .001$ ). Additionally, the researchers found statistically significant correlations between team identification and three satisfaction facets ( $p < .01$ ). These results provide further evidence supporting team identification as a key construct in both customer satisfaction and intent to repurchase.

Theodorakis, et al. (2009) took a different approach and studied the relationship between team identification and service quality. However, like Matsuoka, et al. (2003), they examine how this relationship effects re-purchase intentions. Specifically, Theodorakis, et al. (2009) use two series of six multiple regression equations to analyze the relationships among service quality, team identification, and repurchase intentions. Theodorakis, et al. (2009) use a version of Wann and Branscombe's (1993) SSIS to measure team identification. This modified version, first used by Theodorakis, et al. (2006), altered the original SSIS to account for cultural differences in Greece. The researchers indicate that the team identification scale used was acceptable with a Cronbach's alpha coefficient of 0.78. Additionally, Theodorakis, et al. (2009) conducted their regression analyses in accordance with procedures suggested by Aiken and West (1991). Data were collected, and analyzed, from a sample of 257 consumers of Greek professional basketball. Results of the regression analysis show that team identification was a significant predictor of overall service quality and the service quality constructs of reliability and responsiveness. Furthermore, Theodorakis, et al. (2009) found that team identification moderates the relationship between service quality and repurchase intentions. These findings are consistent with the previous research (Van Leeuwen, et al., 2002 & Matsuoka, et al., 2003).

The summary of the above studies indicates that team identification is a critical component of sport consumer satisfaction and repurchase intentions. Accordingly, team identification is an important construct for sport marketers to understand. However, it has been argued that studies of sport consumers that attempt to measure team identification are, in fact, measuring loyalty (Theodorakis, Koustelios, Robinson, & Barlas, 2009). This argument suggests that the team sport loyalty literature not only intersects with the team identification literature, but in fact, those bodies of literature are one and the same. Furthermore, it can be inferred that social identification with a sports team is the same as loyalty to that team. This paper argues that team identification, club identification, fan identification, and psychological attachment all measure the same theoretical construct; however, team loyalty measures a concept that is inherently different. Funk and James (2006) fully explain this difference when developing a psychological continuum model (PCM) for spectator sport.

Funk and James (2006) study the construct of loyalty as allegiance to a particular sports team. They define allegiance as a commitment to a particular team that is persistent, resistant to change, and influences cognitive thoughts and behavior (Funk & Pastore, 2000). The PCM described by Funk and James (2006) discusses awareness, attraction, attachment, and allegiance as levels within a psychological process. The authors describe awareness as the lowest stage of psychological involvement. Awareness describes individuals who know a sport team exists but are not interested in following that team. Attraction describes a state in which a distinct interest or attitude is formed about a team. The third stage in the continuum is attachment. Attachment describes the point at which an individual has formed a meaningful psychological commitment to the

team (Funk & James, 2006). This paper argues that team identification is the moderating factor that leads to attachment as described by Funk and James (2006). The final stage of psychological commitment is allegiance. Allegiance is shown through the defined persistence and resistance to change that effects cognitive involvement and individual behavior. The PCM suggests that the attachment process includes an individual deriving meaning and a sense of self-concept from interactions with the sports team (Funk & James, 2006). These processes are consistent with the social identity theory literature (Ashforth & Mael, 1989; Mael & Ashforth, 1992; Wann & Branscombe, 1990, & Wann & Branscombe, 1993). Additionally, Funk & James (2006) argue that identification is an outcome of psychological attachment. Following this, and other, attachment outcomes, individuals may reach a level of psychological allegiance, loyalty to the team (Funk & James, 2006). Loyalty expressed as allegiance to a team becomes the critical piece in a consumer's decision to re-purchase a sport product or service for the long-term. However, to attain team loyalty an organization must first understand differently identified fans and reach those different groups with targeted marketing messages that attempt to influence team loyalty. As such, team identification is an antecedent to team loyalty.

Upon review of the existing literature, it has been illustrated that team identification is a vital construct for sport marketers to consider. Wann and Branscombe (1993) provide a reliable method for measuring team identification. This instrument can be used to further examine team identification and its relationship to various sport consumption behaviors. Primarily, sport consumer behaviors need to be studied at various levels of team identification to better understand how to manage the sport

marketing mix. Empirical evidence suggests that team identification influences customer satisfaction, perceptions of service quality, and perceptions of core product quality. These three influences place team identification as critical in ensuring repurchase intentions. While team identification moderates repurchase intentions, it is not synonymous with team loyalty. Team loyalty ensures a long-lasting relationship between an individual and a sports team. As a result, team loyalty is a psychological level that sport marketers must strive to achieve with consumers of their products. Managing team identification becomes the key to fostering team loyalty and ensuring long-term financial success.

### *Service Quality*

The body of literature suggests an intersection of quality and customer satisfaction. However, quality is a distinct concept in both the product-based and service industries. Regan (1963) is one of the first to draw distinctions between these two industries, and since that time service industry research has flourished. Specifically, practitioners and academicians have been interested in how consumers conceptualize quality in the service industry sector.

Gronroos (1984) provides one of the earliest attempts to model consumer perceived service quality. His model describes how service quality is perceived by consumers based on a sample of business executives. It is also argued that consumers arrive at evaluations of quality by comparing the quality they perceive with the quality they were expecting prior to consumption. Gronroos (1984) theorizes that two types of service quality exist, technical quality and functional quality. In addition to the

development of this seminal model, Gronroos (1984) found that the functional quality of a service is of primary importance for consumers.

Many definitions of service quality have followed. Theoretically, definitions of service quality have fallen into one of two distinct categories. The gap theory of service quality is defined as the difference between consumer expectations of the service they will receive and consumer evaluation of the service actually performed (Parasuraman, Zeithaml, & Berry, 1985; Parasuraman, Zeithaml, & Berry, 1988; Lehtinen & Lehtinen, 1991, McDonald, Sutton, & Milne, 1995). This theory was originally developed by Parasuraman, et.al. (1985) and ultimately implemented in a wide range of service industries including the sport industry (McDonald, Sutton, & Milne, 1995). Other definitions subscribe to a performance-based theory of service quality. Performance-based definitions state that service quality is not evaluated as a difference between consumer expectations and firm performance. Instead, performance-based definitions argue that consumers simply evaluate the quality of a firm's service performance in isolation (Cronin & Taylor, 1994). Since the genesis of this debate, researchers have worked to provide empirical support for both theoretical definitions of service quality, and this theoretical debate has informed much of the literature pertaining to service quality in sport.

While Gronroos (1984) noted that service quality may be evaluated as a difference between consumer expectations and firm performance, Parasuraman, et. al. (1985) was the first to fully articulate a gap theory of service quality. The authors conducted a qualitative study of the banking industry. They use consumer focus groups and executive interviews to develop their theory. From this investigation of both

consumers and banking executives, five service gaps were identified. The gap model developed suggests that a primary gap that results in a consumer's evaluation of service quality is developed as a function of four other gaps. The first gap described indicates that there is a difference between consumer expectations of service quality and management perception of what consumers expect. Second, there is an organizational gap between management perception of consumer expectations and service quality specifications within the firm. Third, there is a difference between the service quality specifications from management within the firm and service delivery by the firm. Fourth, there is another organizational gap formed by the service delivered by a firm and the external communications that firm uses to inform consumers. These four gaps combine to form an overall gap that Parasuraman et al. (1985) would define as service quality: the gap between expectations of service and perceptions of service. In addition to generating the gap model of service quality, Parasuraman et al. (1985) discovered from the focus group data that 10 common determinants of service quality seem to exist: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, and tangibles. The authors note that these 10 determinants need to be refined due to the exploratory nature of their study.

From this line of research, SERVQUAL, a 22-item instrument for measuring the five gaps of service quality, was developed (Parasuraman, et. al., 1988). The authors used their previous research (Parasuraman, et al., 1985), that yielded 10 service quality determinants, to develop SERVQUAL. Initially, the 10 determinants of service quality were used to construct a 97-item instrument that was tested in two stages. The first stage of testing focused on condensing the instrument to a more practical form. The second

stage of data collection was concerned with evaluating the reliability of the instrument itself (Parasuraman, et al., 1988). The first data collection consisted of a survey of 200 adult consumers at a shopping mall in the Southwest. The 200 respondents used to purify the scale came from five different service categories, appliance repair and maintenance, retail banking, long-distance telephone, securities brokerage, and credit cards. Results from the first data set indicated the instrument should be refined to 54-items.

Parasuraman, et al. (1988) followed procedures set forth by previous marketing literature during the purification process (Ford, Walker, & Churchill, 1975). A subsequent reexamination of the 54-item instrument indicated a more parsimonious 34-item instrument was ready for further testing with new data samples. The 34-item instrument eliminated the overlap among the original 10 dimensions of service quality. This new instrument included tangibles, reliability, responsiveness, understanding customers, and access as its five dimensions (Parasuraman, et al., 1988). Parasuraman, et al. (1988) then conducted the second stage of data collection. They sampled 200 shopping mall customers from a major metropolitan area in the East. These consumers had used one of four service firms, a bank, a credit card company, an appliance repair company, or a long-distance telephone company in the past three months. This data collection resulted in another purification of the survey instrument to its final 22-item form. Parasuraman et al. (1988) also provided the final form of the five service quality dimensions used in the instrument, tangibles, reliability, responsiveness, assurance, and empathy. The authors also confirmed that the instrument was a reliable tool in evaluating consumer perceptions of service quality (Parasuraman, et al., 1988).

Lehtinen and Lehtinen (1991) built on the early gap theory by researching service quality in the restaurant industry. They attempted to develop two unique approaches to the gap theory. The first approach attempted to use three dimensions of quality to understand consumer evaluation of service quality. The three dimensions used were physical quality, interactive quality, and corporate quality. The second approach uses a simpler two-dimensional theory, process quality and output quality, to explain service quality evaluation. Lehtinen and Lehtinen (1991) explain that each of these dimensions is evaluated in terms of expectations and service performance. They found that the quality dimensions implemented in each approach was fairly suitable for explaining the qualitative data the collected from various types of restaurants. They concluded that each approach that used quality dimensions was suitable for explaining service quality in the restaurant industry. This study was also one of the first to examine differences between different consumer groups of the same service. Three types of restaurants were studied and consumers were grouped based on their respective levels of involvement with the restaurant at which they were customers. The researchers found that consumer group did seem to have an effect on which dimensions were of most importance to a given group's quality evaluation. However, as a secondary purpose of the study, this relationship was only used to illustrate that segmentation is a useful marketing practice (Lehtinen & Lehtinen, 1991).

### *Service Quality in Sport*

In a sport context, Chelladurai (1992) describes six distinct classes of sport and physical activity services. His six classes, consumer pleasure, consumer health/fitness, human skills, human excellence, human sustenance, and human curative, set the sport

service industry apart from traditional business. As such, a unique branch of service industry research has focused on the sport industry. This area of investigation has focused on the team sport service from two perspectives. First, researchers have examined the role the sport service environment plays in influencing consumer perceptions of service quality. Second, scholars have studied the unique role that service staff play in shaping consumer evaluations of quality.

McDonald, Sutton, and Milne (1995) adjusted Parasuraman et. al.'s (1988) SERVQUAL instrument for use in a spectator sport context. As mentioned, SERVQUAL is a 22-item instrument that measures the five service quality gaps identified by Parasuraman, et. al. (1985). TEAMQUAL is a 39-item survey instrument that is also designed to measure those five gaps. McDonald, et. al. (1995) explain that in order to implement SERVQUAL the instrument must be administered twice. Respondents must first complete the survey to measure expectations of service quality, then respondents must complete the survey again to measure perceptions of service quality (Parasuraman, et al., 1988). McDonald, et al. (1995) state that conducting research in this manner would prove very difficult in a spectator sport setting. Additionally, the authors argue that SERVQUAL was developed to measure one service encounter per customer-firm interaction. Due to the nature of the spectator sport consumption experience, it would not be realistic to measure an expectation-perception gap with only one service encounter (McDonald, et al., 1995). The spectator sport experience involves encounters with parking attendants, ticket takers, usher, marketing staff, and concessionaires. As a result, McDonald, et al. (1995) made a number of revisions to SERVQUAL to create TEAMQUAL. First, the researchers added both

perception and expectation items to TEAMQUAL. This allowed the researchers to measure both perceptions and expectations simultaneously with only one administration of the survey instrument. Second, McDonald, et al. (1995) added additional items along each of the five dimensions of service quality to ensure consumer evaluation of those service encounters unique to the spectator sport experience. For example, the authors included an items to measure both perception and expectation of service performance among ticket takers. McDonald et al. (1995) collected data from 1,611 season ticket holders of a successful NBA franchise. They found that the team in question exceeded consumer expectations of quality in almost all areas. Additionally, the researchers asked respondents to allocate 100 points across each of the five dimensions of service quality. They found that tangibles and reliability were the two most important dimensions (McDonald, et al., 1995). The authors argue that TEAMQUAL provides sport marketing practitioners with an auditing system that will help sport franchises determine the effectiveness of organizational service-delivery systems and customer satisfaction with those systems (McDonald, et al., 1995).

Kim and Kim (1995) developed an instrument for measuring various aspects of service in Korean sport centers. QUESC is designed to identify the types and levels of service desired by sport center customers. The instrument also highlights areas of sport center service quality that require managerial attention (Kim & Kim, 1995). This study is framed using a performance-based theory of service quality. QUESC is similar to SERVQUAL and TEAMQUAL in that it consists of items that are used by consumers to evaluate perceptions of service quality. Kim and Kim (1995) argue that QUESC is different than the two gap theory instruments because it takes the form of a consumer

attitude-based model that uses consumer's importance-weighted evaluations of performance to measure service quality. QUESC initially contained 45 items that were paired to elicit desirability of a service and then measure satisfaction with that service. Kim and Kim (1995) collected data from 271 consumers of Korean sport centers and used a factor analysis to generate 12 factors that were important to Korean sport center consumers: ambience, employee attitude, reliability, information-giving, programming, personal consideration, price, exclusivity, ease of mind, convenience, stimulation, and social opportunity. Later, the researchers eliminated social opportunity due to its lack of desirability among respondents. Seven factors were consistent with Parasuraman et al. (1988). Within the 12 dimensions discovered Kim and Kim (1995) found that cleanliness, security of personal goods, convenient schedules, convenient access, preparedness for emergency, and safety education were the most important items. The researchers also found that the six Korean sport centers that were the focus of the study lagged behind consumer expectations (Kim & Kim, 1995).

Tomlinson, Buttle, and Moores (1995) began to analyze the role that service quality plays in a sport consumer's decision to attend a sporting event. This study utilized a two-page questionnaire that was administered to consumers of baseball, basketball, and football games outside of the respective stadiums. Data were collected from eight total games, yielding 339 responses. The questionnaire was constructed through a review of sport marketing literature and resulted in the inclusion of 39 items (Tomlinson, et al., 1995). The authors cited a number of early spectator attendance demand studies to generate their questionnaire items. Tomlinson, et al. (1995) found that sport event spectators are not a homogeneous group. They found that significant

differences existed between regular and irregular spectators. Most importantly, they found that regular spectators tended to value live action as the most important reason for attendance. Conversely, irregular spectators value customer service above other factors (Tomlinson, et al., 1995). This study suggests that service quality plays an important role in influencing spectator attendance at sporting events.

Wakefield and Sloan (1995) were one of the first to evaluate the sport service environment as a distinct factor effecting spectator attendance. This study acknowledges that team success can result in increased attendance figures; however, it also cites Melnick (1993) in arguing that spectators may in fact attend sport contests for reasons other than team performance. Bitner (1992) developed a conceptual framework for evaluating the role physical surroundings play in influencing the execution of customer service and consumer evaluation of that service. Bitner (1992) found that the servicescape did impact customer service outcome and evaluation in the various industries she studied. Furthermore, she implies that this impact may be felt in the sport industry. Wakefield and Sloan (1995) built on this research from Bitner (1992). Wakefield and Sloan (1995) theorize that a number of stadium factors impact a spectators desire to stay in the sportscape and, consequently, influence that consumers desire to return to the sportscape. The study identifies parking, cleanliness, crowding, fan control, and food service as the primary stadium factors effect consumer satisfaction with the sportscape (Wakefield & Sloan, 1995). Additionally, Wakefield and Sloan (1995) acknowledge that a consumer's loyalty to his/her team will act as a moderating factor in determining the consumer's current and future attendance intentions. The researchers conducted five field studies at different NCAA Southeastern Conference football games.

Surveys were distributed prior to each game, and respondents were asked to complete, and return, the survey prior to the end of the first quarter of each game. A sample of 1,491 was obtained and analyzed using covariance structural modeling (Wakefield & Sloan, 1995). The model showed acceptable goodness-of-fit with the data and upheld the central premise of the study that the sportscape would play an important role in determining spectator attendance intentions. The results of the study indicate that the sportscape model provides sport management practitioners a tool to maintain customer satisfaction and, in turn, increase spectator attendance (Wakefield and Sloan, 1995).

Wakefield, Blodgett, and Sloan (1996) built on the conceptual model developed by Wakefield and Sloan (1995). In this study, the researchers develop a survey instrument that determines how sport spectators perceive the sport facility (Wakefield, et al., 1996). To develop this instrument, Wakefield, et al. (1996) refines the previous theory put forth by Wakefield and Sloan (1995). The authors argue three factors, stadium access, facility aesthetics, and scoreboard quality, directly influence consumer satisfaction with the sportscape. They also argue, that four additional factors, layout accessibility, seat comfort, spaciousness, and directional signage directly, and indirectly, effect spectator perceptions of crowding (Wakefield, et al., 1996). These seven factors represent the same conceptual theory developed by the previous five factor model of Wakefield and Sloan (1995). Pretests were conducted using multiple items from the sportscape theoretical framework, and reliability analysis and exploratory factor analysis were initially used to refine the survey instrument. The model was estimated by combining pretest data collected at two Southeastern Conference football games and data from two additional SEC football games at the same stadium (Wakefield, et al., 1996).

From these data the measurement model was built and confirmed using confirmatory factor analysis. The model was then validated using a sample of spectators from two minor league baseball games. Wakefield, et al. (1996) found that perceived crowding was the most important factor affecting satisfaction with the sportscape. Additionally, this study found that scoreboard quality was very important in affecting consumer evaluation of the sport service environment. The authors summarize that the sportscape survey instrument can assist practitioners in making decisions regarding their respective stadiums; however, they acknowledge that the instrument may be refined for different spectator sport settings (Wakefield, et al., 1996).

Papadimitiou and Karteliotis (2000) tested QUESC (Kim & Kim, 1995) in a private fitness center in Greece. Data collected from 487 users of the fitness facility failed to support the final 11-dimension structure used to measure both consumer desire for a service and consumer perception of service execution by Kim and Kim (1995). Papadimitiou and Karteliotis (2000) suggest that a more parsimonious four factor model more adequately describes consumer expectations of service quality. This study used a panel of experts in the field to qualitatively analyze QUESC and refine it to ensure applicability in the chosen research setting. Following this review the researchers collected data using a revised 28-item version of QUESC. Exploratory factor analysis revealed problematic overlapping among the factors. Papadimitious and Karteliotis (2000) used these results to interpret a four factor model for measuring service quality expectations and performance, FITSQ. They found that, statistically, the best model included 24 items measuring satisfaction with instructor quality, facility attraction and operation, program availability and delivery, and significant others. The researchers

found that instructor quality explained the most variance in service quality evaluation (Papadimitiou & Karteliotis, 2000). FITSQ represents a refined version of QUESC; however, the researchers differ from Kim & Kim (1995) in their theoretical definition of service quality. Even though Kim and Kim (1995) use a desired service-perceived service approach to measuring service quality, they acknowledge a performance-based definition of service quality. While, Papadimitiou and Karteliotis (2000) use an expectations-performance definition of service quality to measure customer satisfaction with fitness center service.

Chelladurai and Chang (2000) introduced a new framework for analyzing the quality sport services. It is argued that evaluating service quality consists of a three-dimensional approach that begins with identifying the various targets of quality. These targets of quality can be defined as exactly what is being evaluated. This is consistent with Bitner (1992), Wakefield and Sloan (1995), and Wakefield, Blodgett, and Sloan (1996). All of these studies recognize that the sport context is unique in that a number of service encounters will occur upon each visit to a sport service environment. Chelladurai and Chang (2000) argue that standards of quality form the next dimension of service quality. They explain that quality as excellence, quality as value, manager specifications of quality, professional specifications of quality, and meeting consumer expectations of quality are the five primary standards of quality. Third, it is suggested that the client, the service provider, and the organization all have a role as evaluators of quality. This approach is similar to that proposed by researchers supporting the gap theory of service quality (Parasuraman, et al., 1985, Parasuraman, et al., 1988, and McDonald, et al., 1995). Chelladurai and Chang (2000) propose that targets of quality, standards of

quality, and evaluators of quality combine to make up sport service quality itself. This study proposes a new theory of defining service quality in sport. It utilizes elements of both the gap theory and perceived-performance theory to assess service quality.

Hill and Green (2000) took another step in understanding the role that service quality plays in effecting spectator attendance. This study builds on the theory put forth by Tomlinson, et al. (1995). The primary purpose of this study is to evaluate the effects of the Sportscape (Wakefield, et al., 1995) and consumer attachment to a sport, and team, on rugby match attendance (Hill & Green, 2000). The researchers collected data from 530 spectators at three different rugby league stadiums. Hill and Green (2000) then used hierarchical regression to measure the effect of the Sportscape experience and personal attachment to rugby, the home team, and the away team to predict future attendance intentions. The study found that favorable perceptions of the Sportscape, as a whole, and involvement with the sport of rugby were significant predictors of future attendance intentions for supporters of the home team in each stadium. However, the specific elements of importance within the Sportscape differed among the three stadiums. Also, Hill and Green (2000) found that perceptions of the Sportscape had no significant relationship with future attendance intentions for supporters of the visiting team at two of the stadiums studied. The results of this study suggest that to fully explain a spectator's intent to attend a sporting venue in the future, and consequently customer satisfaction, research is needed to understand the relationships between fan identification, sportscape experience, and satisfaction with the sport contest itself.

Kelley and Turley (2001) attempt to build on previous research in the sport service marketing literature. This study introduces another exploratory assessment of

service quality, and customer satisfaction, in a sport setting. The study generates a pool of 35 service quality attributes citing Parasuraman, et al. (1985), Wakefield and Blodgett (1994), Wakefield and Sloan (1995), and Wakefield, et al., (1996). Using these 35 attributes, Kelley and Turley (2001) conducted a pretest using a sample of graduate and undergraduate students was used to assess the reliability of the instrument developed. The researchers then collected data at four college basketball games. From these data, mean importance values were calculated and nine factors emerged (Kelley & Turley, 2001). The study found that employees, price, facility access, concessions, fan comfort, game experience, show time, convenience, and smoking were the most important factors in evaluating customer satisfaction with the service experience. It is apparent that eight of Kelley and Turley's (2001) factors conceptually overlap with models put forth by Wakefield, et al. (1996), Kim and Kim (1995), and Papadimitriou and Karteliotis (2000). Interestingly, Kelley and Turley (2001) found that price seems to effect consumer service quality evaluations. The authors then compared the importance of these factors across a variety of demographic constructs. Consistent with Hill and Green (2000), Kelley and Turley (2001) found that different categories of consumers tend to value different service quality factors as more, or less, important. Further research is needed to fully understand the consumer characteristics that effect these evaluations of service and overall customer satisfaction in a sport setting.

Ko and Pastore (2004) and Shonk (2006) expand the body of sport service quality literature beyond the more well researched areas of spectator sport and the health and fitness industry. Specifically, Ko and Pastore (2004) examine perceptions of service quality in participant sport, and Shonk (2006) forms new dimensions of quality within a

sport tourism context. Ko and Pastore (2004) propose a conceptual model that is comprised of four primary dimensions of service quality. The primary dimensions, program quality, interaction quality, outcome quality, and environmental quality consist of a variety of sub-dimensions. This multidimensional approach is proposed to allow future researchers and practitioners the flexibility of including specific sub-dimensions applicable to a variety of participant sport situations (Ko & Pastore, 2004). The model proposed by Shonk (2006), like Ko & Pastore (2004), theorizes a multi-dimensional approach. Also similar to Ko and Pastore (2004), Shonk (2006) uses four primary dimensions, access quality, accommodation quality, venue quality, and contest quality, to categorize a variety of sub-dimensions. Both of these conceptual models rely on performance-based consumer evaluations of service quality.

Alexandris, Zahariadis, Tsorbatzoudis, and Grouios (2004) attempt to simplify a performance-based service quality model proposed by Brady and Cronin (2001) and use that simplified model in a health club context. The primary purpose of this article is to test the effect service quality and customer satisfaction has in predicting consumer commitment to a health club and future word-of-mouth communication. Brady and Cronin (2001) use a multi-level model with three primary dimensions, interaction quality, physical environment quality, and outcome quality. Alexandris, et al. (2004) directly apply this multidimensional model to the health club industry. Data were collected from 175 private health club members in Greece, and responses to service quality were measured using Brady and Cronin's (2001) scale. Alexandris, et al. (2004) argue that previous service quality models do not provide sufficient evidence of reliability and construct validity. As such, they propose that Brady and Cronin's (2001) scale is more

applicable. Alexandris, et al. (2004) found that the three primary dimensions described provide a more reliable measure of service quality and customer satisfaction than previous models.

The body of service quality literature in sport is informed by general service marketing theory. As such, sport service marketing theory has been developed following two primary lines of inquiry, the gap model of service quality and performance-based theory of service quality. The gap model argues that consumers evaluate quality as a difference between expectations and perceptions. Conversely, performance-based theory suggests that consumers only evaluate service according to what they perceive. The literature reveals that both theories have received varying degrees of empirical support. However, limited sport marketing research has investigated the role team identification plays in service quality. Further, no studies in the sport service quality literature examine the possible differences in consumer perceptions of service quality at different levels of team identification and as a result of core product quality evaluations. Further research is needed to understand if core product quality or team identification play a role in service quality evaluations.

## CHAPTER III

### METHODOLOGY

The following chapter provides an explanation of the steps taken in order to investigate the relationships between core product quality, team identification, service quality, and customer satisfaction of collegiate sport team consumers. First, a brief summary of the overall purpose of the study will be reviewed. Next, the study's research hypotheses will be explained. Third, an overview of the research design and survey instrument will be presented followed by a discussion of the participants in the study and sampling procedures. Finally, data analysis procedures will be discussed in the last section of this chapter.

#### *Review of Purpose*

The primary purpose of this research is to examine the relationship between perceptions of core product quality, team identification, and the controllable components of the spectator sport experience. Specifically, this study investigates the role core product quality perceptions play in influencing typical determinants of customer satisfaction: team identification, sportscape quality, and service staff quality. Additionally, this research evaluates the direct relationship between core product quality and customer satisfaction. A secondary purpose of this study is to support previous research that has shown team identification exhibits an influential relationship over service quality evaluations and customer satisfaction.

### *Hypotheses*

Based on the previous literature in the areas of core product quality, customer satisfaction, service quality, consumer loyalty, and team identification outlined in Chapter II the following research hypotheses are proposed:

- H<sub>1a</sub>: Individuals that rate the quality of the core product higher will report higher levels of overall customer satisfaction.
- H<sub>1b</sub>: Individuals that rate the quality of the core product higher will report higher levels of team identification.
- H<sub>1c</sub>: Individuals that rate the quality of the core product higher will perceive higher levels of service quality from both the sportscape and service staff.
- H<sub>2a</sub>: Individuals that report higher levels of team identification will perceive higher levels of service quality from both the sportscape and service staff.
- H<sub>2b</sub>: Individuals that report higher levels of team identification will report higher levels of overall customer satisfaction.

### *Research Design*

To model the relationships among core product quality, team identification, overall spectator satisfaction, and service quality, a non-experimental survey design was used. Survey research is used to generalize from a smaller sample to a larger population (Babbie, 1998), and is arguably one of the most important areas of measurement in applied social science research (Fowler, 2001). Survey research is typically a cost effective way to obtain large amounts of data from a sample in a short period of time. This data can then be used to generalize about the attitudes and behaviors of the population as a whole and tends to ensure high levels of reliability due to the repeated use

of the same questions in very similar contexts (Babbie, 1998). This study will utilize survey questions that have been found reliable in previous sport marketing studies. Appendix B includes the complete list of survey items. Specifically, the items included in this survey instrument were identical to those found in Oliver (1980), Trail and James (2001), Trail, Fink, and Anderson, (2003), Wakefield, Blodgett, and Sloan (1996), Howat, Abscher, Crilley, and Milne (1996), and Zhang, Pease, Smith, Lee, Lam, and Jambor (1997). Each of these scales has been used to research spectator sport consumer attitudes and beliefs, and has been shown to be valid and reliable.

### *Survey Instrument*

To test the proposed hypotheses, this study combined the scales of five previously tested instruments into one administrable survey. The scales used in measuring each construct are as follows:

#### *Customer Satisfaction*

Consistent with Greenwell, Fink, and Pastore (2002), customer satisfaction was measured using a 3-item scale defined by Oliver (1980). Customers were asked to respond to the following statements:

Table 3.1 Customer Satisfaction Scale Items

- 
1. I think I did the right thing by deciding to attend this game.
  2. I am satisfied with my decision to attend this game.
  3. I am not happy that I attended this game.
- 

Items will be measured on a 7-point Likert-type scale ranging from strongly agree to strongly disagree. Item 3 was reverse coded as a result of its content. In their use of the same scale, Greenwell, et al. (2002) found the instrument to be internally consistent with Cronbach's alpha coefficient of 0.90. This 3-item scale has been used by Oliver and Swan (1989) and Westbrook and Oliver (1991) in traditional business research, and

Madrigal (1995) in sport consumer research. As such, it is suggested to be a reliable scale for measuring customer satisfaction.

### *Core Product*

Consumer perceptions of the core product were measured using Zhang, et al.'s (1997) scale. This scale was also used by Greenwell, et al. (2002) and was found to be internally consistent with a Cronbach's alpha coefficient of 0.80. Zhang, et al.'s (1997) scale measures consumer perception of overall team quality, win/loss record, place in league standings, team history, and star players on the team using a 7-point Likert scale. This scale also includes items measuring opposing team quality and perceptions of opposing team star players (Zhang, et al., 1997). This scale exhibits strong validity due to its ability to measure core product quality in accordance with the definition of core product used in this study. Specifically, this study recognizes that the term "product," as defined by Kotler (1989) as "anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need," does represent a bundle of benefits. However, this investigation is concerned with using a valid and reliable instrument that addresses the question of what the sport consumer is really buying. This study draws a focus on the core product as the specific benefit derived from consumption. In a spectator-sport context, the core product is the actual event on the field, court, or ice (Masteralexis, et al., 2009). Zhang, et al.'s (1997) sport product scale provides one of the best available measures of consumer perceptions of the quality of the components of the actual event on the playing surface. All survey items were measured using a 7-point Likert scale with anchor statements of strongly agree and strongly disagree. The survey items included in the instrument are as follows:

Table 3.2 Core Product Quality Scale Items

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1. Overall, the <team> are a high quality team.
  2. The <team> have a successful win/loss record.
  3. The <team> hold a successful place in the league standings.
  4. The <team> have a storied history and tradition.
  5. The <team> have star players.
  6. Overall, the quality of the away team the <team> are playing is high.
  7. The away team the <team> are playing has star players.
- 

### *Team Identification*

Team identification was measured using the Team Identification Index (TII).

This scale is often utilized in the sport marketing literature, and it has been tested, and shown internal consistency, in numerous research studies (Ross, et.al., 2009; Trail, et.al., 2005; James & Ross, 2002; & Trail & James, 2001). This team identification scale is meant to measure the intensity of a sport fan's relationship with a given team. This instrument relies on behavioral, affective, and cognitive reactions of sport spectators in an attempt to validate the hypothesis that team identification mediates fan reaction. Additionally, this scale was developed in accordance with the theory that team identification is an expression of consumer loyalty, and that idea is represented in four scale items. This is consistent with the theoretical viewpoint expressed by this investigation. The 4-items in the questionnaire were rated on a 7-point scale with anchors of strongly agree and strongly disagree.

Table 3.3 Team Identification Index

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1. The <team> are my team.
  2. I consider myself a loyal fan of the <team>.
  3. Supporting the <team> is important to me.
  4. I want others to know I am a fan of the <team>.
- 

### *Service Environment*

Consumer perceptions of the sport service environment were measured using Wakefield, Blogett, and Sloan's (1996) sportscape instrument. This instrument relies on

the measurement of seven primary areas of service: stadium access, facility aesthetics, scoreboard quality, layout accessibility, seat comfort, spaciousness, and directional signage. The sportscape instrument uses a 7-point Likert scale to measure the seven service areas identified. Greenwell, et al. (2002) used five subscales of this instrument in measuring physical facility quality. They omitted the scale items measuring the use of directional signage and space allocation because it was deemed an unnecessary construct for the minor league hockey sample from which they were drawing. This research is being conducted in a different context than Greenwell, et al.'s. (2002) study, namely an under-researched area of college athletics in a rural college setting. As a result, this investigation will only use six of the seven sub-scales developed by Wakefield, et al. (1996). After screening the sportscape instrument with athletic department executives, it was deemed unnecessary to measure facility access in this investigation. The rural nature of the campus, location of the football stadium, and basketball arena, and ample parking available made this construct irrelevant. As such, the 22 items measured consumer perceptions of facility aesthetics, seating comfort, facility layout, space allocation, scoreboard quality, and directional signage. Greenwell, et al. (2002) found the subscales they used to have internal consistency with Cronbach's alpha coefficient of 0.91. These statements were also evaluated using a 7-point Likert scale with anchors of strongly agree and strongly disagree.

Table 3.4 Sportscape Scale Items

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*Space Allocation*

1. The concession stands are big enough to handle the crowds.
2. The restrooms are large enough to handle the crowds.
3. The walkways are wide enough to handle the crowds.
4. This stadium allows enough space to handle the crowds.

Table 3.4 Sportscape Scale Items (continued)

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*Facility Aesthetics*

1. The stadium is painted in attractive colors.
2. This stadium's architecture gives it an attractive character.
3. This stadium is decorated in an attractive fashion.
4. This is an attractive stadium.

*Scoreboard Quality*

1. The scoreboards are entertaining to watch.
2. The scoreboards add excitement to the game.
3. The scoreboard provides interesting statistics.
4. The stadium has high quality scoreboards.

*Seating Comfort*

1. There is plenty of knee room in the seats.
2. There is plenty of elbow room in the seats.
3. The seat arrangements provide plenty of space.
4. This stadium provides comfortable seats.

*Stadium Layout*

1. The stadium layout makes it easy to get to the kind of concessions you want.
2. The stadium layout makes it easy to get to your seat.
3. The stadium layout makes it easy to get to the restrooms.
4. Overall, the stadium layout makes it easy to get where you want to go.

*Directional Signage*

1. Signs at the stadium help me know where I am going.
  2. Signs at the stadium give clear directions of where things are located.
- 

*Service Staff*

Howat, Absher, Crilley, and Milne (1996) provide a valuable instrument for measuring the quality of sport stadium service staff using another 7-point Likert scale. This study used Howat, et al.'s (1996) four-item scale to measure consumer perceptions of service staff. Howat, et al. (1996) developed this scale to adapt Parasuraman, et al.'s (1985) SERVQUAL to assess consumer perceptions of service staff in spectator sport settings.

Table 3.5 Service Staff Quality Scale Items

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1. The staff is responsive to my needs.
  2. The staff is presentable and easily identified.
  3. The staff is experienced and knowledgeable.
  4. The staff are qualified, experienced, and consistent.
-

Greenwell, et. al. (2002) also used this scale to measure consumer perceptions of service staff as a predictor of customer satisfaction, and with a Cronbach's alpha coefficient of 0.92, found the scale to be internally consistent. The present study views service quality through the theoretical lens of consumer perception, and the above scale represents a consistent approach in measurement.

### *Participants*

The population of interest for this study is fans of NCAA Division I-FCS football and men's basketball. Specifically, consumers at a rural institution in the Midwest of the United States were surveyed at one football and one men's basketball game during the regular season. Due to the nature of college sport, the total population of consumers is not known; however, it is possible to express a relatively accurate estimation of the number of potential survey respondents by viewing the posted attendance figures following each game. Through numerous conversations with athletic department marketing executives, permission was granted to collect data in the football stadium and basketball arena before, during, and after each game.

### *Data Collection Procedure*

There are numerous types of survey distribution methods available in social science research. This study used the mall-intercept technique to collect quantitative data from consumers (Rice & Hancock, 2005) at multiple college athletic events. The mall-intercept method allows the researcher to distribute surveys to participants as they encounter the research team. In this study, a trained team of four graduate student researchers, led by the principle investigator, approached potential respondents in two different sport venues. One venue was an on-campus outdoor football stadium (stadium),

and the second venue was an on-campus basketball arena (arena). The stadium concourse, its surrounding areas, and the arena concourse are areas of heavy foot-traffic before, during, and after an athletic contest. A significant advantage of the mall-intercept technique in this study was the ability for the research team to pre-qualify participants. This allowed the researcher to adhere to IRB guidelines stipulating research participants must be at least 18 years of age. The only remaining qualification for participation in this study was that participants must have been present, and experienced, the game in question. The mall-intercept technique, executed in the stadium and arena concourses, ensured that this was the case.

Consistent with the mall-intercept technique, the research team distributed paper and pencil surveys to consumers inside the admission gates of the football stadium and in the arena concourse during and after the football and men's basketball games. Survey distribution began thirty minutes prior to the start of the games and continued until thirty minutes following the conclusion of the games. Surveys were distributed in both lower and upper level concourses of the basketball arena and throughout the football stadium's single concourse. For this study, it was important to collect consumer data immediately following a consumption experience. The survey items measuring consumer perceptions of the sportscape and service staff require recall of the respondents' most recent service experiences with the organization. Administering the survey following entry into the stadium and arena increases the likelihood that participants will have had a recent interaction with the sportscape and service staff. While solely administering the survey following the completion of the game would further enhance the possibility of multiple

consumer interactions with the organization, it is assumed that a post-game survey alone would severely limit sample size.

### *Data Analysis*

This study will use structural equation modeling to conduct a confirmatory factor analysis (CFA) that attempts to fit the proposed TCSM to two sets of data. Additionally, Pearson correlation coefficients and descriptive statistics will be analyzed to further understand the implications of this study.

### *Structural Equation Modeling*

Structural equation modeling (SEM) will be used to test a theoretical model of the relationships among the variables in question. SEM is a statistical technique that allows a researcher to test and estimate causality among a collection of variables (Pearl, 2000, & Kline 2010). SEM uses a combination of quantitative data and qualitative assumptions derived from a theoretical framework of investigation to assess possible causal relationships in a specific research context (Kline, 2010). The TCSM was developed to more adequately explain customer satisfaction theory in sport by arguing for a performance-based theoretical approach to quality evaluations. SEM allows the researcher to directly test the proposed TCSM. Specifically, this investigation will conduct a factor analysis designed to examine the relationships among core product quality, team identification, service quality, and customer satisfaction. Factor analysis includes a variety of correlational analyses that examine the relationships among variables in a study (Gorsuch, 1983). As such, this is an appropriate method to address the research hypotheses in this study. The type of factor analysis used in this research was a confirmatory factor analysis (CFA). CFA is a SEM factor analysis technique that

analyzes a priori measurement models in which both the number of factors and their correspondence with the indicators are explicitly specified (Kline, 2010). The other type of factor analysis is called exploratory factor analysis (EFA), and is used to explore data to determine the number of appropriate factors present in a sample, and is generally used as a theory-generating tool (Stevens, 1996). CFA is the preferred method of investigation when previous research has conducted sufficient analyses to justify the use of a particular theoretical model (Gorsuch, 1983). Gorsuch (1983) also states that CFA is the more theoretically important method of factor analysis. The body of literature examined in Chapter II provides the theoretical framework on which the investigation rests. Given this framework provides valid and reliable scales that measure core product quality, team identification, service quality, and customer satisfaction in accordance with the most relevant ways consumers evaluate these constructs, CFA was chosen as the appropriate method of analysis.

### *Validity and Reliability*

Validity and reliability are critical components in establishing quality in research. Quality is one of the most important issues in the research process (Trochim, 2005), and it is a driving force behind the trustworthiness of all research. As a component of quality research, validity refers to the degree of accuracy reflected in a study's measurement and assessment of a specific concept (Howell, et al., 2005). As such, validity is used to discuss the quality of various conclusions reached in the research process (Campbell, 1988; Shadish, et al., 2002). Conversely, reliability ensures quality of instrumentation used in research. Specifically, reliability refers to the extent to which an instrument, or procedure, will produce the same results in repeated tests (Howell, et al., 2005).

Therefore, to justifiably draw conclusions about research hypotheses using a specific instrument, the researcher must account for validity and reliability.

Validity is defined as the best available approximation to the truth of a given proposition (Cook & Campbell, 1979). There are two primary types of validity, external and internal validity. In a quantitative research setting, external validity refers to the degree to which research conclusions will generalize to a larger population (Campbell & Stanley, 1966), while internal validity is concerned with the approximate truth of conclusions made regarding causal relationships (Cook & Campbell, 1979).

Additionally, internal validity refers to the rigor of a research study. A sound research design and well-reasoned decisions regarding variables measured and omitted will show rigor in the research conducted. Also, the degree to which the researchers have taken into account alternative explanations to discovered causal relationships is a concern of internal validity in causal studies. However, researchers must be concerned with both types of validity to ensure quality in their investigations.

External validity in a quantitative research study allows investigators to generalize their findings to a larger population. There are two scientific approaches to gathering data with the purpose of generalizing results to a population. First, the sampling model includes drawing a representative sample from a population for which the researcher intends to generalize. If a sample is truly representative of the population in questions, results can be justifiably generalized to that population (Trochim, 2005). However, there are several problems and threats to external validity based on the sampling model. Often, research will be conducted without having a previous understanding of what population is going to be generalized. Additionally, drawing a representative sample from a given

population tends to be a difficult task. Time is constantly an issue in the sampling model, and even if a representative sample is drawn from an identified population, it is impossible to account for changes over time in your sampling procedures (Trochim, 2005). Second, the proximal similarity model argues that you can generalize study findings to another context based on the degree to which that context is similar to the study setting (Campbell, 1986). A desired context that is close to the research context on the gradient of similarity can be generalized to with relative confidence. However, the further a study and a desired context are from one-another on the gradient of similarity the less confident a researcher can be in generalizing results (Trochim, 2005). The proximal similarity model does not allow generalization with certainty. Instead, this model allows researchers to generalize with varying levels of confidence based on the similarities found between the research setting and desired context. There are even further threats to external validity that can result in a researcher making incorrect generalizations from the results of a study. Specifically, the people, place, and time involved in your study could be part of an unusual situation. If a researcher generalizes to a population based on results from data collected from a unique group within a population, an unusual place of data collection, or from a unique period of time, then significant external validity concerns arise (Trochim, 2005). The best practices for avoiding threats to external validity are ensuring random sampling from an identified population and providing empirical support for the use of the proximal similarity model.

In addition to striving for strength of external validity, researchers must work to achieve strong internal validity. There are numerous types of internal validity. Four key types of internal validity are construct, content, face, and criterion related validity. Each

of these four types of validity are concerned with assessing the level of accuracy a research study reflects in attempting to measure a specific concept (Howell, et al., 2005). Construct validity refers to the degree to which inferences can be made between a theoretical concept and the instrument used in measurement (Cronbach & Meehl, 1955; Cook & Campbell, 1979; Shadish, Cook, & Campbell, 2002). Construct validity can be further explained by two additional, and related, types of validity (Campbell & Fiske, 1959). The first additional type of validity is called convergent validity, and refers to the idea that theoretically similar instruments should provide agreement among their respective ratings. This type of validity indicates that the instrument measures the theoretical concept it purports to measure (Howell, et al., 2005). Discriminate validity is the theoretical opposite of convergent validity, and is demonstrated if the instrument used shows a lack of relationship between instruments used to measure unrelated theoretical concepts (Howell, et al., 2005). Carmines and Zeller (1991) suggest three steps for ensuring construct validity. First, the researcher must specify theoretical relationships among measuring instruments. Second, empirical relationships between theoretical concepts and measuring instruments must be examined. Third, the resulting empirical evidence should be interpreted in a way that clarifies the instrument's construct validity.

The three additional types of internal validity are important for ensuring quality research as well. Content validity refers to the extent to which a measurement instrument matches the relevant content domain (Carmines & Zeller, 1991). To establish content validity, a researcher must provide a good detailed description of the content domain (Trochim, 2005). This can partly be established through a comprehensive review of the literature in a field. Face validity is concerned with the appearance of the instrument

used in studying a construct. Trochim (2005) explains that to establish face validity, a researcher must assess the instrument of measurement to see whether, on its face, it appears as though it is a good translation of the construct. Trochim (2005) admits that face validity is the weakest way to demonstrate internal validity, and in fact, face validity does not depend on established theories of support like content validity (Fink, 1995). While face validity appears to be a subjective judgment call, there are steps researchers can take to improve the strength of face validity. For example, the research can develop a systematic process that could include reviews of the instrument by experts in the field of the construct being studied (Trochim, 2005). Finally, criterion-related validity requires researchers to compare the research instrument with another measurement instrument that has previously demonstrated validity (Howell, et al., 2005). Criterion-related validity often requires investigators to hypothesize about how the instrument will perform based on the theory of the construct (Trochim, 2005). Each of these types of validity provides strength to the argument that the instrument used in a study is able to provide accuracy in measurement of a construct.

As with external validity there are a number of threats to internal validity. A threat to internal validity will cause a researcher to make incorrect conclusions about an instrument's ability to measure the research construct (Trochim, 2005). Of the many threats to internal validity, testing, instrumentation, inadequate pre-operational explication of constructs, and social threats are of primary importance to survey research. Testing threats refer to the idea that a group receiving the measurement instrument may be more sensitive to the measurement (Trochim, 2005). Typically, this threat refers to a test-retest situation. However, it could be the case that a participant's responses to survey

items could be influenced by the fact they are completing the instrument. The instrumentation threat is caused by inconsistencies with the testing instrument. Inadequate pre-operational explication of constructs refers to a researcher's lack of definition in explaining the research construct to be measured (Trochim, 2005). Researcher's can control for these threats by implementing a rigorous process of reviewing literature, thinking through research constructs, supporting the instrument with previous empirical data, and incorporating expert opinions. Furthermore, there are a number of social threats to internal validity that must be accounted for by the researcher. Specifically, hypothesis guessing, evaluation apprehension, and researcher expectancies can be an issue in survey research (Trochim, 2005). Hypothesis guessing refers to a common phenomenon in which survey respondents attempt to guess at the purpose of the study. This guessing behavior often influences the way in which participants respond to survey items (Trochim, 2005). A common practice used to avoid hypothesis guess is informing the participants of the purpose of the study prior to their completion of the survey instrument. Another common social threat is evaluation apprehension. This threat is less concerning in sport fan behavior research; however, a researcher must consider the possibility that respondents could be anxious about how they will be evaluated by the instrument. Again, clear explanation of the purpose of the research, and intended use of the data collected, can help to ease these concerns. Finally, researcher expectancies become an issue because researchers can bias the results of item responses (Trochim, 2005). This can be a significant issue if the researcher delivers the instrument while in a position of power over the respondents. For example, a teacher collecting data

from students can lead to this threat. This threat can be largely avoided by involving other researchers to assist in data collection.

Reliability is also of critical concern to researchers, and it is defined as the extent to which an instrument, or procedure, will produce the same results in repeated tests (Howell, et al., 2005). There are four key types of reliability: test-retest, parallel-forms, internal consistency, and inter-rater reliability (Trochim, 2005). Test-retest reliability is used to assess the consistency of an instrument across different time periods. Parallel-forms reliability assesses the results of two competing measures of the same construct. Internal consistency refers to the consistency of results across items within an instrument. Finally, inter-rater reliability is used to assess to degree to which different researchers provide consistent estimates of the same construct using the primary research instrument (Trochim, 2005). The most commonly used method for ensuring reliability in survey research is to use Cronbach's alpha (Cortina, 1993), and represents the mean of all possible split-half coefficients (Cronbach, 1951). Analysis of this statistic is the generally accepted method for measuring internal consistency. Without reliability in the replication of research procedures investigators would not be able to draw conclusions, formulate theories, or make claims about the generalizability of a study (Howell, et al., 2005).

Validity and reliability are critically important in ensuring the quality of academic research. In the proposed study, the validity and reliability of each scale used has already been established (Trail & James, 2001; Trail, et. al., 2003; Sutton, et al., 1997; Zhang, et al., 1999; Trail, et al., 2000; Fink, et al., 2002; & Greenwell, et al., 2002). However, to further test the validity of all of the constructs in this context used to examine customer

satisfaction determinants and outcomes a confirmatory factor analysis will be conducted. It is argued that multiple fit indices should be used to provide proper evidence of overall model fit (Kilne, 1998). As such, this study will examine the root mean square of approximation (RMSEA), the non-normed fit index (NNFI), the comparative fit index (CFI), the goodness of fit index (GFI), the standardized root-mean squared residual (SRMR), and the Chi-Square ( $\chi^2$ ) statistic. Reliability was assessed by examining Cronbach's alpha coefficients and average variance extracted (AVE) for each model test.

### *Model Specification*

According to Kline (2010), the first step in any SEM analysis is to specify a theoretical model. Model specification is defined as the representation of your hypotheses in the form of a structural model (Kline, 2010). Following model specification data should be collected, prepared, and screened, and then used to estimate the fit of that data to the theoretical model presented. The body of literature reviewed in Chapter II provides an initial foundation for a structural model of existing core product quality, team identification, service quality, and customer satisfaction theory. Previous models indicate that both team identification and consumer perceptions of service quality influence customer satisfaction. Van Leeuwen, et al. (2002) argue that the higher a consumer rates her/his level of team identification the higher that individual will rate her/his overall satisfaction with the decision to attend a given game. Likewise, the higher a consumer rates the quality of service provided, particularly in reference to the sportscape and service staff, the higher that consumer will rate overall satisfaction. This suggests the possible existence of causal relationships between both team identification and customer satisfaction, and service quality and customer satisfaction. Furthermore, the

existing theory suggests that team identification also acts as an influential construct over service quality evaluations (Van Leeuwen, et al., 2002). This is not unexpected, as consumer reports of quality perceptions and ratings of satisfaction are representations of an individual's opinion regarding an experience with a particular sport team. When measured in the same setting, team identification represents an individual's psychological attachment to that same sport team. Therefore, it is not surprising that consumer's psychological attachment may influence her/his ability to objectively evaluate quality and effect overall satisfaction. This study argues that core product quality is often overlooked as another construct that has the potential to exhibit the same sort of causal influence over service quality and satisfaction evaluations. Additionally, it is quite likely that core product quality may causally influence team identification as well. As such, the model in Figure 3.1 represents the proposed hypotheses for this investigation, and thus represents the specified theoretical model for testing.

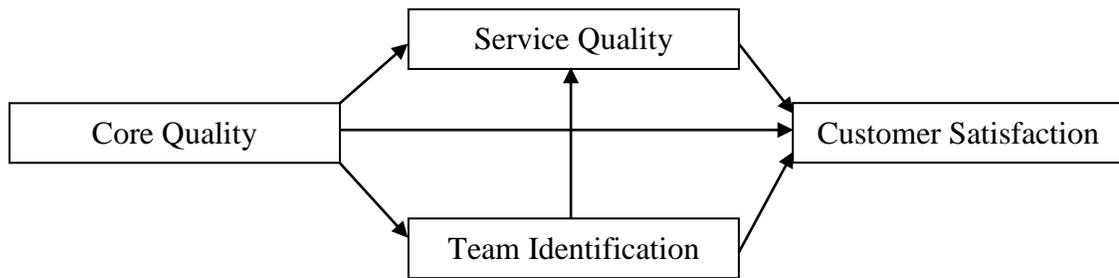


Figure 3.1 Specified Theoretical Model

*Hypothesis Testing*

Hypotheses 1a, 1b, and 1c state that the higher a consumer rates core product quality the higher they will also rate customer satisfaction (1a), team identification (1b), and service quality (1c). Therefore, a causal relationship is purported to exist. Hypotheses 2a and 2b state that the higher a consumer rates team identification the higher she/he will

also rate service quality (2a) and customer satisfaction (2b). These hypotheses are identical to those represented in Figure 3.1 and are introduced to further test team identification theory in a relatively under researched area of spectator-sport, NCAA Division-I FCS.

To test the proposed hypotheses a structural model was estimated using CFA. These hypotheses were developed in accordance with a body of literature that revealed a number of important variables that influence customer satisfaction. SEM may use a combination of variable types to address specific research hypotheses. First, observed variables are directly measured by the researcher. In this study, there are 37 observed variables, and are represented by the items included in the complete questionnaire. Latent variables are the second type of variable in a SEM investigation. Latent variables are not directly measured; instead, they are inferred from the observed variables. The review of literature in Chapter II and the discussion of the proposed model for this investigation have provided the framework for the use of five latent variables. Specifically, these variables are core product quality, team identification, service quality (sportscape and service staff), and customer satisfaction. The latent variables, and their hypothesized relationships, can be found in Figure 3.1. To assess how well the data collected in this sample fits the proposed theoretical model, and these hypothesized relationships, a variety of common model fit statistics were used. Specifically, this study examines the RMSEA, NNFI, SRMR, CFI, GFI,  $\chi^2$  statistic, and the  $\chi^2$  to degrees of freedom ratio. Cronbach's alpha correlation coefficients were then used to test the reliability of the instrument. Furthermore, Pearson correlation coefficients were calculated for all hypothesized relationships. This statistic allows for direct comparisons

of correlations between any two variables in the model, and will assist in the assessment of each hypothesized relationship. Chapter IV includes a detailed explanation of the results of the hypothesis tests, and it includes a comprehensive analysis of the fit statistics described.

## CHAPTER IV

### RESULTS

The purpose of this study was to examine the impact that core product quality, team identification, and service quality have on customer satisfaction. The team customer satisfaction model (TCSM) was developed according to previous sport marketing theory and then tested using confirmatory factor analysis (CFA). Specifically, this study investigated the proposed causal relationships that core product quality exhibits over the other constructs. Additionally, this investigation tested the generally accepted theory that increases in team identification lead to higher reports of service quality evaluation and higher levels of satisfaction among consumers of spectator sport. This chapter provides a detailed discussion of the statistical results acquired through the testing of the proposed model. First, the chapter begins with an overview of the first model test, and then reports the results of the second model test. Results also include sample characteristics, validity and reliability estimates, and analysis of the proposed research hypotheses.

#### *TCSM Test One - Football*

Four hundred and ninety-two (492) fans were approached near the end of the NCAA season. Three hundred sixty-one (361) surveys were collected resulting in a response rate of 73%, and 338 surveys were deemed usable. As part of the researcher's cooperation with athletic department marketing executives, six questions were included to assess relevant demographic information. The information gathered included sex, age, ethnicity, frequency of attendance, student status, and season ticket holder status.

Females represented 33.1% of the sample, and males made up 66.9%. The majority of respondents fell into the 18-25 age group (52.7%). While 16.0% were ages 46-55 and 12.4% were ages 36-45. The smallest age group in the sample was age 66 and older at 1.8%. The ethnic profile of the sample was largely made up of Caucasians (82.8%) with the second largest ethnic group being African American (10.7%). In this sample, 32.5% of respondents were attending their first game of the season and 24.9% of participants had attended all of the team's games in 2010. The sample was almost evenly split between university students (49.7%) and non-students (50.3%), while 19.5% of survey respondents were season ticket holders. A complete summary of these demographic statistics can be found in Table 4.1.

Table 4.1 Football Sample Characteristics

Variable	%	Frequency
<i>Age</i>		
18-25	52.7	178
26-35	7.7	26
36-45	12.4	42
46-55	16.0	54
56-65	9.5	32
66 and older	1.8	6
Total	100	338
<i>Sex</i>		
Male	66.9	226
Female	33.1	112
Total	100	338
<i>Ethnicity</i>		
African American	10.7	36
Caucasian	82.8	280
Hispanic American	2.4	8
Native American	1.2	4
Other	3.0	10
Total	100	338
<i>Games Attended</i>		
1	32.5	110
2	15.4	52
3	13.6	46
4	13.6	46
5	24.9	84
Total	100	338
<i>Student</i>		
Yes	49.7	168
No	50.3	170
Total	100	338
<i>Season Ticket Holder</i>		
Yes	19.5	66
No	80.5	272
Total	100	338

*Latent Variable Grand Means*

An overall grand mean was calculated for each latent variable to provide a more complete description of each sample and allow for more meaningful comparisons between the football spectator sample collected for test one and the basketball fan sample collected for test two. Table 4.2 shows the overall grand means for each theoretical

construct represented in the TCSM for the football sample. Interestingly, none of the latent variable means represent a high score on any of the scales used in this study. Staff quality (M=4.90) and scoreboard quality (M=4.89) had the highest mean scores, but these scores do not represent strong evaluations of either construct. The remaining service environment constructs had means ranging from 4.29 to 4.77. Furthermore, customer satisfaction (M=4.66) and team identification (M=4.54) were reported as moderate for the sample. Core product quality (M=3.72) is the most important construct in this investigation, and it reported the lowest mean of all latent variables in the model.

Table 4.2 Football Sample Latent Variable Grand Means

Latent Variable	Mean
Customer Satisfaction	4.66
Team Identification	4.54
Core Product Quality	3.72
Staff Quality	4.90
Space Allocation	4.77
Facility Aesthetics	4.41
Scoreboard Quality	4.89
Seating Comfort	4.54
Facility Layout	4.50
Directional Signage	4.29

#### *Core Product Quality*

The most important variable in the tests of the TCSM is core product quality. It is hypothesized that core product quality will have direct, causal relationships with all other variables in the model. As such, it is valuable to examine the frequency with which respondents rate the quality of the football game. This information is also important to the marketing executives at the university that is the subject of this research. While it is difficult to control the quality of the core spectator sport product, it is critical to understand consumer perceptions of this quality, or lack thereof. Understanding consumer evaluations of core product quality will help organization understand if they

should use core product messages in marketing campaigns. Table 4.3 shows the frequency of core product quality evaluations in the first sample. A majority of the respondents (74.3%) rated the quality of the core product as moderate. Sixty-seven (19.8%) of the respondents placed a high rating on core product quality, and twenty (5.9%) people surveyed rated quality low.

Table 4.3 Football Sample Core Product Quality Evaluation

Identification	Frequency	%
High (> 4.7)	67	19.8
Moderate (2.4 – 4.7)	251	74.3
Low (< 2.3)	20	5.9
Total	338	100

#### *Team Identification*

The football data was further analyzed in an effort to describe the levels of team identification present in the sample, and Table 4.4 provides a detailed explanation of the results. The majority of respondents (60.9%) reported high levels of team identification, and 122 people (36.1%) indicated they were moderately identified with the university football team. Only 10 respondents (3.0%) indicated a low level of team identification.

Table 4.4 Football Sample Team Identification Frequency

Identification	Frequency	%
High (> 4.7)	206	60.9
Moderate (2.3 – 4.7)	122	36.1
Low (< 2.3)	10	3.0
Total	338	100

#### *Instrument Validity*

The TCSM was specified, and fit to the sample collected at the NCAA Division I-FCS football game, using LISREL 8.8. The fit indices in Table 4.5 reveal conflicting results with regard to the model's overall fit to the data. These conflicting results are problematic for the overall validity of any conclusions arrived at in this study. The chi-

squared statistic (2753.07) showed that the data did not fit the proposed model; however, the chi-squared to degrees of freedom ratio (4.1) indicated that the model fit within liberal guidelines (Hu & Bentler, 1999). Additionally, the SRMR and GFI indicated a bad fit with values of 0.12 and 0.69 respectively (Hu & Bentler, 1999). In contrast, the NNFI (0.92) and CFI (0.93) indicated the model was a good fit to the data, and the RMSEA (0.098) revealed a mediocre fit (Hu & Bentler, 1999). The contradictory nature of these statistical results indicates that the proposed model was not a fit for the data collected at the football game. The lack of fit shown by the model to this set of data creates substantial threats to the validity of any conclusions drawn throughout the remainder of the analysis. A great deal of caution should be taken when interpreting the statistical results from the CFA.

Table 4.5 Football Sample Fit Indices for the TCSM

Fit Statistics	Value	Indication of Fit
$\chi^2$	2753.07	Poor
$\chi^2/df$ ratio	4.1	Within liberal guidelines
RMSEA	0.098	Mediocre fit
NNFI	0.92	Good
CFI	0.93	Good
SRMR	0.12	Poor
GFI	0.69	Poor

#### *Instrument Reliability*

In order to assess the reliability of the scales included in this investigation, Cronbach's alpha coefficients were calculated to measure internal consistency. Additionally, the average variance extracted (AVE) for each construct was also examined. AVE compares the amount of variance explained by each scale and the amount of variance that might be attributed to measurement error (Fornell & Larcker, 1981). As Table 4.6 indicates, all of the Cronbach's alpha coefficients met the 0.70

criteria set forth by Nunally and Bernstein (1994), and ranged from 0.76 to 0.94. All of the constructs, except core product quality (0.36), met Fornell and Larcker's (1981) level of acceptability for AVE (0.50). These statistics indicate that the scales used to measure customer satisfaction, team identification, staff quality, and sportscape quality were acceptable for this research context, and allow for continued analysis. It should be noted that the low AVE value for Zhang, et al's (1997) core product quality scale could impact the results of the study. Additionally, the unusual number of factor loadings greater than 1.00 (see Table 4.6) may come as a result of the overall poor fit of the theoretical model. As such, any conclusions drawn from the factor loadings should be considered tenuous.

Table 4.6 Football Sample Construct Reliability Statistics

Variables	$\alpha$	AVE	t-value	Factor loading
<i>Customer Satisfaction</i>	0.82	0.69		
Item 1			5.46	1.22
Item 2			4.79	1.24
Item 3			12.69	0.89
<i>Core Product Quality</i>	0.81	0.36		
Item 1			9.59	1.25
Item 2			11.92	1.00
Item 3			11.77	1.01
Item 4			12.39	0.66
Item 5			10.68	1.13
Item 6			12.14	0.69
Item 7			12.36	0.62
<i>Team ID</i>	0.92	0.74		
Item 1			11.87	1.08
Item 2			8.43	1.41
Item 3			9.70	1.36
Item 4			10.60	1.25
<i>Staff Quality</i>	0.89	0.68		
Item 1			12.43	0.86
Item 2			11.98	0.93
Item 3			5.58	1.17
Item 4			6.34	1.14

Table 4.6 Football Sample Construct Reliability Statistics (continued)

<i>Aesthetics</i>	0.94	0.80		
Item 1			11.16	1.43
Item 2			9.50	1.45
Item 3			10.08	1.37
Item 4			7.94	1.46
<i>Comfort</i>	0.85	0.62		
Item 1			7.30	1.17
Item 2			7.51	1.12
Item 3			10.89	0.89
Item 4			12.31	0.80
<i>Layout</i>	0.90	0.70		
Item 1			10.61	1.03
Item 2			9.47	0.98
Item 3			9.18	0.99
Item 4			9.81	1.00
<i>Scoreboard</i>	0.91	0.73		
Item 1			8.48	1.21
Item 2			8.14	1.24
Item 3			11.04	1.10
Item 4			10.96	1.08
<i>Space Allocation</i>	0.81	0.54		
Item 1			12.17	0.65
Item 2			9.24	1.30
Item 3			6.77	1.25
Item 4			10.96	0.96
<i>Signage</i>	0.76	0.62		
Item 1			9.00	1.21
Item 2			9.42	1.35

*TCSM Test Two – Basketball*

Two hundred and ninety-one (291) fans were approached at one NCAA Division I men’s basketball game. One hundred and seventy-one (171) surveys were obtained representing a response rate of 58.8%, and 158 usable surveys were collected. While the make-up of this sample showed some similarities to that of the football sample there were some notable differences. First, a higher percentage of respondents fell into the 18-25 age range (78.5%) and were students of the university (79.7%). The ethnic make-up of the sample showed greater diversity than the football sample. The basketball game data was

still predominately Caucasians (67.1%), but a higher percentage of respondents were African American (27.8%). Females made up 46.8% of the sample, and the distribution of attendance frequency was similar to that of the football sample. Table 4.7 includes a full description of the demographic information obtained from the basketball sample.

Table 4.7 Basketball Sample Characteristics

Variable	%	Frequency (N)
<i>Age</i>		
18-25	78.5	124
26-35	6.3	10
36-45	3.8	6
46-55	6.3	10
56-65	2.5	4
66 and older	2.5	4
Total	100	158
<i>Sex</i>		
Male	53.2	84
Female	46.8	74
Total	100	158
<i>Ethnicity</i>		
African American	27.8	44
Caucasian	67.1	106
Hispanic American	2.5	4
Asian American	1.3	2
Native American	1.3	2
Total	100	158
<i>Games Attended</i>		
1-2	31.6	50
3-4	20.9	33
5-6	15.2	24
7-8	18.4	29
9	13.9	22
Total	100	158
<i>Student</i>		
Yes	79.7	126
No	20.3	32
Total	100	158
<i>Season Ticket Holder</i>		
Yes	10.1	16
No	89.9	142
Total	100	158

### *Latent Variable Grand Means*

Grand means were calculated for each of the latent variables used to represent the theoretical constructs of the TCSM. The sample obtained for the second test of the proposed model yielded spectators that reported higher levels of customer satisfaction (M=5.55) and slightly higher levels of team identification (M=4.81) than the initial test of the model. Fans in this sample also reported higher levels of core product quality (M=4.37) than those surveyed at the football game. This sample was collected at a different physical facility than the first model test, but spectator evaluations of sportscape quality at the basketball arena were similar to those of spectators at the football stadium. Mean scores for the sportscape variables ranged from 4.18 for space allocation to 5.00 for facility aesthetics. These means will be further discussed in terms of their importance with regard to the research hypotheses.

Table 4.8 Basketball Sample Latent Variable Grand Means

Latent Variable	Mean
Customer Satisfaction	5.55
Team Identification	4.81
Core Product Quality	4.37
Staff Quality	4.98
Space Allocation	4.18
Facility Aesthetics	5.00
Scoreboard Quality	4.47
Seating Comfort	4.68
Facility Layout	4.89
Directional Signage	4.94

### *Core Product Quality*

The core product quality evaluations in the basketball sample were analyzed, and the results of this analysis can be found in Table 4.9. When compared to the football sample, a greater percentage of respondents evaluated the core basketball product as high quality (31.6%). However, the majority of respondents evaluated quality as moderate

(60.2%). The same was true for initial sample drawn from the NCAA football game. The basketball sample showed similar characteristics with respect to low quality evaluations as well. Thirteen respondents (8.2%) indicated the core product quality was low. Overall, each sample was similarly distributed around their respective grand mean scores for core product quality.

Table 4.9 Basketball Sample Core Product Quality Evaluation Frequency

Identification	Frequency	%
High (> 4.7)	50	31.6
Moderate (2.6 – 4.7)	95	60.2
Low (< 2.6)	13	8.2
Total	158	100

*Team Identification*

Table 4.10 reports the frequency of team identification levels found in the basketball sample. This sample showed similar characteristics when compared to the football sample. The highest percentage of respondents reported high levels of identification to the basketball team (50.0%), but approximately 10% more respondents were highly identified to the football team. In the basketball sample, 36.1% of respondents indicated a moderate level of identification, and only 7.6% reported a low level of team identification. Overall, the basketball sample indicated similar levels of team identification when compared to the initial sample taken at the football game. The distribution of team identification frequencies around their grand means were similar for both samples.

Table 4.10 Basketball Sample Team Identification Frequency

Identification	Frequency	%
High (> 4.7)	79	50.0
Moderate (2.6 – 4.7)	67	42.4
Low (< 2.6)	12	7.6
Total	158	100

### *Instrument Validity*

While the initial tests of the TCSM at the NCAA Division I-FCS football game indicated contradictory statistical results for validity, the second test at the NCAA Division I men's basketball game yielded clear evidence that the model did not fit the data. Table 4.11 shows the fit statistics for the second model test. Once again, the chi-squared statistic was high (2294.02), and the chi-squared to degrees of freedom ratio (3.38) was within liberal guidelines indicating mediocre fit to the data. The RMSEA (0.11) and SRMR (0.12) were higher than the minimum suggested 0.10 level, and the NNFI (0.85) and CFI (0.89) also fell below the desired 0.90 level. Furthermore, the GFI was well below 0.90 with a value of 0.62. These results indicate that the model was not a fit to the data collected at the men's basketball game (Hu & Bentler, 1999). As a result of this failure to fit the model to the data, all other statistical results must be interpreted with a significant level of caution, and the failure to fit the TCSM to the data creates significant threats to validity.

Table 4.11 Basketball Sample Fit Indices for the TCSM

Fit Statistics	Value	Indication of Fit
$\chi^2$	2294.02	Poor
$\chi^2/\text{df}$ ratio	3.38	Within liberal guidelines
RMSEA	0.11	Poor
NNFI	0.85	Poor
CFI	0.89	Poor
SRMR	0.12	Poor
GFI	0.62	Poor

### *Instrument Reliability*

While validity is a significant concern for this study, the reliability of the scales utilized was strong (see Table 4.12). Cronbach's alpha coefficients and AVE were used to assess the reliability of the ten sub-scales used in this study. All of the Cronbach's

alpha coefficients were above the acceptable 0.70 level, ranging from 0.71 to 0.94. As with the football sample, one sub-scale failed to meet the 0.50 AVE threshold, facility space allocation (0.41). In contrast to the first model test, Zhang, et al.'s (1997) scale measuring core product quality reported an acceptable AVE value of 0.60. Customer satisfaction (0.73) and team identification (0.80) also exceeded the 0.50 threshold. A number of individual items reported abnormally high factor loadings (see Table 4.12). While it is not unusual for a factor to load at a level higher than 1.00, it is unusual to see multiple items load on the same latent variable at a level that high. It is possible that the poor model fit reported is influencing the factor loadings. These results indicate the scales in the second sample were reliable measures of each theoretical construct of the TCSM, but the factor loadings should be interpreted with caution.

Table 4.12 Basketball Sample Construct Reliability Statistics

Variables	$\alpha$	AVE	t-value	Factor loading
<i>Customer Satisfaction</i>	0.85	0.73		
Item 1			1.47	1.44
Item 2			5.00	1.36
Item 3			8.75	0.82
<i>Core Product Quality</i>	0.91	0.60		
Item 1			7.82	1.22
Item 2			7.39	1.31
Item 3			8.03	1.15
Item 4			6.35	1.38
Item 5			7.23	1.36
Item 6			8.60	0.85
Item 7			8.72	0.64
<i>Team ID</i>	0.94	0.80		
Item 1			8.02	1.37
Item 2			7.14	1.44
Item 3			5.85	1.58
Item 4			6.13	1.58
<i>Staff Quality</i>	0.88	0.67		
Item 1			8.40	0.82
Item 2			7.64	0.89
Item 3			2.41	0.99
Item 4			7.07	0.90

Table 4.12 Basketball Sample Construct Reliability Statistics (continued)

<i>Aesthetics</i>	0.89	0.68		
Item 1			7.94	0.93
Item 2			6.93	1.05
Item 3			4.28	1.14
Item 4			7.38	1.09
<i>Comfort</i>	0.81	0.55		
Item 1			4.32	1.24
Item 2			5.49	1.12
Item 3			7.47	1.01
Item 4			8.49	0.76
<i>Layout</i>	0.87	0.63		
Item 1			6.98	1.12
Item 2			7.52	0.94
Item 3			7.45	0.92
Item 4			4.98	1.05
<i>Scoreboard</i>	0.94	0.81		
Item 1			6.55	1.42
Item 2			5.10	1.61
Item 3			6.63	1.50
Item 4			7.87	1.50
<i>Space Allocation</i>	0.71	0.41		
Item 1			8.14	0.64
Item 2			6.08	1.34
Item 3			5.81	1.11
Item 4			7.27	0.87
<i>Signage</i>	0.88	0.79		
Item 1			6.38	1.38
Item 2			5.57	1.54

#### *Core Product Quality Influence*

To test hypotheses 1a, 1b, and 1c, path coefficients for each of the hypothesized relationships with core product quality in the CFA were analyzed for each sample. Table 4.13 describes the path coefficients of core product quality (CORE), customer satisfaction (CS), team identification (TEAM ID), staff quality (STAFF), facility space allocation (SPACE), facility aesthetics (AEST), scoreboard quality (SCORE), seating comfort (COMFORT), facility layout (LAYOUT), and effective directional signage

(SIGNS). These path coefficients represent the amount of variance one latent variable explains in another, and they are to be interpreted just as regression coefficients in multiple regression (Kline, 2011). Table 4.13 also includes the standard error (SE) and statistical significance for each latent variable relationship in the CFA. Additionally, Pearson correlation coefficients were calculated for each of the relationships of interest to further examine the impact core product quality may have on customer satisfaction, team identification, and service quality. Since the overall model was a poor fit to each set of data, the following results of the hypothesis tests should be interpreted with caution.

Table 4.13 CFA Path Coefficients – Football

Latent Variable Relationship	Path Coefficient ( $\beta$ )	SE
CORE → CS	0.36*	0.060
CORE → TEAM ID	0.31*	0.062
CORE → STAFF	0.33*	0.063
CORE → SPACE	0.41*	0.072
CORE → AEST	0.60*	0.058
CORE → SCORE	0.46*	0.059
CORE → COMFORT	0.46*	0.060
CORE → LAYOUT	0.49*	0.062
CORE → SIGNS	0.53*	0.066
TEAM ID → CS	0.57*	0.150
TEAM ID → STAFF	0.36*	0.063
TEAM ID → SPACE	0.44*	0.071
TEAM ID → AEST	0.13*	0.053
TEAM ID → SCORE	0.36*	0.057
TEAM ID → COMFORT	0.22*	0.058
TEAM ID → LAYOUT	0.30*	0.058
TEAM ID → SIGNS	0.77*	0.062
STAFF → CS	0.00	0.046
SPACE → CS	0.18*	0.057
AEST → CS	0.23*	0.054
SCORE → CS	0.05	0.051
COMFORT → CS	0.10	0.049
LAYOUT → CS	0.16*	0.052
SIGNS → CS	0.09	0.160

\*Indicates statistical significance ( $p < .05$ )

Table 4.14 CFA Path Coefficients – Basketball

Latent Variable Relationship	Path Coefficient ( $\beta$ )	SE
CORE → CS	0.57*	0.076
CORE → TEAM ID	0.55*	0.083
CORE → STAFF	0.45*	0.091
CORE → SPACE	0.31*	0.110
CORE → AEST	0.62*	0.090
CORE → SCORE	0.51*	0.080
CORE → COMFORT	0.40*	0.086
CORE → LAYOUT	0.65*	0.088
CORE → SIGNS	0.67*	0.081
TEAM ID → CS	-0.22	0.160
TEAM ID → STAFF	0.26*	0.095
TEAM ID → SPACE	0.35*	0.120
TEAM ID → AEST	0.23*	0.086
TEAM ID → SCORE	-0.01	0.090
TEAM ID → COMFORT	-0.07	0.100
TEAM ID → LAYOUT	0.05	0.086
TEAM ID → SIGNS	0.72*	0.076
STAFF → CS	0.04	0.095
SPACE → CS	0.28*	0.120
AEST → CS	0.05	0.072
SCORE → CS	0.00	0.061
COMFORT → CS	0.08	0.060
LAYOUT → CS	0.10	0.075
SIGNS → CS	0.86*	0.190

\*Indicates statistical significance ( $p < .05$ )

#### *Hypothesis 1a*

It was hypothesized that individuals that rate the quality of the core product higher will report higher levels of overall customer satisfaction. The path coefficient for the relationship between core product quality and customer satisfaction in the initial model test, at the NCAA Division I-FCS football game, was relatively small ( $\beta = 0.36$ ) but statistically significant ( $p < .05$ ). Additionally, the Pearson correlation coefficient for the initial sample was 0.19. According to Cohen (1988), this represents a small correlation. These results indicate that although the hypothesized causal relationship is

slight it is present in the football sample. The path coefficient in the second model test, at the NCAA Division I men's basketball game, was higher ( $\beta = 0.57$ ) than the initial sample and also statistically significant ( $p < .05$ ). The Pearson correlation coefficient indicated a medium to large correlation (0.50) between the two constructs. For the basketball sample, hypothesis 1a was supported. The football sample also supported hypothesis 1a, but the strength of that support was much weaker.

#### *Hypothesis 1b*

Hypothesis 1b states that individuals that rate the quality of the core product higher will report higher levels of team identification. The path coefficient ( $\beta = 0.31$ ) in the football sample indicated that core product quality explained 31% of the variance in team identification. This relationship, while small, was statistically significant ( $p < .05$ ). The Pearson coefficient indicated a small (0.24) correlation between core product quality and team identification. The basketball sample, reported a path coefficient that explained a higher percentage of the variance in team identification accounted for by core product quality ( $\beta = 0.55$ ), and, according to Cohen (1988), a large Pearson correlation coefficient (0.51). Overall, the statistical results support hypothesis 1b. The basketball test showed a stronger causal relationship between core product quality and team identification than the football test, but each test of the TCSM yielded sufficient evidence to support the hypothesis that spectators who rate core product quality higher tend to be more highly identified with the home team.

#### *Hypothesis 1c*

It is also hypothesized that individuals that rate the quality of the core product higher will perceive higher levels service quality. This particular hypothesis addresses

both perceptions of service staff performance and sportscape quality. In the football game test, the relationship between core product quality and perceived service staff quality was statistically significant ( $p < .05$ ) but relatively small ( $\beta = 0.33$ ). The basketball model test yielded a slightly higher percentage of variance explained ( $\beta = 0.45$ ). This coefficient was also statistically significant ( $p < .05$ ). The model test conducted at the football game revealed a small correlation between core product quality and perceived staff quality (0.14), but the basketball model test indicated a moderate correlation between the two variables (0.46). A liberal interpretation of these statistical results would indicate core product quality does have a causal relationship with perceived service staff quality.

Next, six subscales of the sportscape survey instrument developed by Wakefield, et al. (1996) were used to assess the perceived quality of the service environment. All of the path coefficients in the football model test (see Table 4.13) indicated statistically significant ( $p < .005$ ) relationships of causality between core product quality and the constructs measured by the sportscape instrument. The coefficients ranged from 0.60 to 0.41. Only the relationship between core product quality and facility aesthetics ( $\beta = 0.60$ ) accounted for more than a small amount of the variance between the variables.

Additionally, the Pearson correlation coefficients ranged from 0.23 to 0.43. Facility layout (0.29), scoreboard quality (0.28), and facility space allocation (0.23) all indicated small correlations with core product quality. However, facility aesthetics (0.43), seating comfort (0.32), and effective directional signage (0.41) all had medium correlations with core product quality. The basketball model test yielded similar results. Again, all of the path coefficients in the CFA were statistically significant ( $p < .05$ ). In this test, the coefficients tended to be larger ranging from 0.31 to 0.67. Core product quality explained

a small amount of the variance in space allocation (31%), scoreboard quality (51%), and seating comfort (40%), but it explained moderated amounts of variance in facility aesthetics (62%), facility layout (65%), and directional signage (67%). The Pearson correlation coefficients ranged from 0.29 to 0.59. Facility aesthetics (0.59), facility layout (0.56), and directional signage (0.58) indicated borderline, large correlations with core product quality. Seating comfort (0.42) and scoreboard quality (0.48) indicated medium correlations with core product quality, and space allocation (0.29) showed a borderline, medium correlation. Overall, the statistical significance of each causal relationship between core product quality and service quality is sufficient to accept the hypothesis that higher core product quality causes higher levels of perception of service quality from both the service staff and throughout the service environment.

#### *Team Identification Influence*

Hypotheses 2a and 2b were also tested by analyzing the path coefficients in the CFA (see Table 4.13). Furthermore, the linear relationships between team identification and customer satisfaction and service quality were evaluated by calculating Pearson correlation coefficients. It should again be noted that the poor fit of the CFA model to the data collected in each sample creates significant threats to the validity of the following analysis.

#### *Hypothesis 2a*

Hypothesis 2a states that individuals that report higher levels of team identification will perceive higher levels of service quality from both the service staff and the sportscape. All of the path coefficients in the football model (see Table 4.13) were statistically significant ( $p < .05$ ) and ranged from 0.13 to 0.77. Core product quality

accounted for a small amount of the variance in service staff quality (36%), facility aesthetics (13%), seating comfort (22%), scoreboard quality (36%), facility layout (30%), and facility space allocation (44%). However, core product quality accounted for a moderate level of the variance in perceptions of the directional signage used in the football stadium (77%). Additionally, the Pearson correlation coefficients showed a range from small to large correlations between team identification and the seven service quality variables in this investigation. According to Cohen (1988), the correlation between team identification and effective directional signage in the football stadium was large (0.77); however, the correlations between identification and service staff quality (0.42), space allocation (0.47), scoreboard quality (0.43), seating comfort (0.32), and stadium layout (0.36) were medium. There was a small correlation between facility aesthetics and identification (0.28).

The second model test indicated four of the seven service quality variables were statistically significant ( $p < .05$ ). Team identification showed significant causal relationships with service staff quality, space allocation, facility aesthetics, and effective directional signage, but it did not indicate significant relationships with scoreboard quality, seating comfort, or stadium layout. The path coefficients for the significant relationships ranged from 0.23 to 0.72. All of the Pearson coefficients indicated that there was a correlation between identification and service quality. They ranged from 0.24 to 0.81. The correlation between team identification and effective directional signage was the largest (0.81). Overall, the lack of significance for three of the seven service quality variables causes hypothesis 2a to be rejected in the basketball model; however, the football model yielded sufficient evidence to accept hypothesis 2a for that test.

### *Hypothesis 2b*

Finally, it is hypothesized that individuals that report higher levels of team identification will report higher levels of overall customer satisfaction. While the results of the tests of hypotheses 1a, 1b, 1c, and 2a all yielded similar findings, the test of hypothesis 2b was very different between the two model tests. First, the model test that was conducted using the football game data indicated hypothesis 2b was supported. The path coefficient measuring the variance in customer satisfaction that was accounted for by a change in team identification yielded a positive (0.57), and statistically significant ( $p < .05$ ), relationship. Furthermore, the Pearson coefficient indicated that there was a large (0.60) correlation between the two variables. These results indicate that hypothesis 2b is supported for the football model test. However, the basketball model test was not statistically significant, and the path coefficient indicated a negative relationship (-0.22). There was a large correlation (0.58) between the two variables reported by the Pearson coefficient, but this statistic is not sufficient to accept hypothesis 2b for the basketball model.

## CHAPTER FIVE

### DISCUSSION

Customer satisfaction is one of the most critical components in facilitating customer retention and developing consumer loyalty. Typically, providing high quality goods and services is the most effective way to ensure consumers are satisfied with their product usage or service experience. However, the unique nature of team spectator sport makes controlling quality a more complex task. Managing the quality of the sportscape and service staff is no different than managing quality in a restaurant. Furthermore, ensuring the quality of product extensions, like jerseys, hats, and souvenirs, is the same as any other retail industry. However, the core sport product in team sport includes the game experience itself. The game experience includes the quality of the home and away team, the histories and traditions of the teams in competition, and the outcome of the game itself. The unique features of the uncontrolled game experience have lead researchers to develop team sport specific theories of customer satisfaction development (Van Leeuwen, Quick, & Daniel, 2002). As Van Leeuwen, et al. (2002) explain, traditional business theories of customer satisfaction were applied in team sport environments. However, that research was deemed insufficient in its explanation of the unique nature of team sport. Initially, team identification was included as an important construct in influencing team sport satisfaction, and the inclusion of social identification in a customer satisfaction model of team sport is critical. However, the complex nature of the spectator sport product has led to a further need to examine customer satisfaction in team sport. As a result, Van Leeuwen, et al. (2002) proposed the spectator sport satisfaction

model (SSSM) using previous service quality literature as a new way to understand spectator sport customer satisfaction. Specifically, the SSSM uses the disconfirmation of expectations model (DEM) of service quality to explain how consumers arrive at satisfaction outcomes. Importantly, Van Leewuen, et al. (2002) argue that the core sport product, the game experience, must be included in a customer satisfaction model of team sport. As such, they propose a detailed model that includes team identification, the win/loss phenomenon, core product quality, and service quality as causal constructs of customer satisfaction.

The purpose of this study was two-fold. First, this study sought to modify the SSSM to more appropriately reflect core product and service quality evaluations in team sport. Second, this investigation tested the proposed team customer satisfaction model (TCSM) in two NCAA Division I-FCS athletics contexts. As Van Leeuwen, et al. (2002) suggest, customer satisfaction in team sport is influenced by team identification, core product quality, and service quality. However, their use of the DEM does not appropriately represent service quality evaluations, and this study argues that service quality is perception driven. As Cronin and Taylor (1995) argue, service quality evaluations do not come as a result of a difference between a consumer's expectations and the perceived performance of a service encounter. Instead, the perceived performance of a service encounter is evaluated singly. While a service encounter may, or may not, meet a prior expectation, that expectation does not influence the actual evaluation of the service experience. The service experience is first evaluated, then it is compared to any available pre-conception the consumer may bring with them to the service interaction. This is an important distinction, and the proposed TCSM advances sport customer

satisfaction theory by applying Cronin and Taylor's (1995) performance-based theory of quality evaluations to Van Leeuwen, et al.'s (2002) SSSM. Additionally, the TCSM recognizes that the win/loss phenomenon is part of core product quality as measured by Zhang, et al.'s (1997) core product quality scale. Furthermore, the TCSM separates service staff quality and sportscape quality to more appropriately reflect consumer service evaluations. Finally, the proposed model suggests that core product quality has a causal influence over all of the constructs in the proposed model.

The TCSM includes three hypothesized relationships that form the foundation of the two model tests. The first hypothesis (1a) states that an increase in the perception of the quality of the core sport product will result in an increase in customer satisfaction. Hypothesis 1b suggests that an increase in the perceived quality of the core sport product will result in an increase in the level of team identification reported. The third hypothesis (1c) states that an increase in the perceived core product quality will result in an increase in perceived service quality. These hypotheses represent the attempted advances in sport marketing theory present in this study.

The second purpose of this study is to test prior sport marketing theory in the under researched area of NCAA Division I-FCS. Sport marketing theory often uses team identification as an important market segmentation tool, describing consumers in terms of their individual psychological attachments to a particular sport team. This psychological attachment has been shown to influence consumer purchase intentions and, ultimately, consumer behaviors. As a result, team identification has been shown to influence the development of consumer loyalty (Kwon, et al., 2005), and over customer satisfaction and service quality evaluations (Yusof, et al., 2008). The team identification literature has

established that these causal relationships exist in major professional sport, minor league sport, and NCAA Division I-FBS. However, little research has addressed the influence of team identification at the NCAA Division I-FCS level. This study theorizes that team identification has the same causal influence over customer satisfaction and service quality at the NCAA Division I-FCS level as it does in professional sport and Division I-FBS. Accordingly, it is hypothesized that as team identification levels increase service quality evaluations will increase (Hypothesis 2a), and that as team identification increases overall customer satisfaction will increase (Hypothesis 2b). These hypotheses represent the testing of existing sport marketing theory in an under researched area.

#### *Summary of Findings*

The proposed TCSM suggests that core product quality has a positive, causal influence over customer satisfaction, team identification, and service quality. The model also indicates that team identification has a positive, causal influence over customer satisfaction and service quality. The TCSM was tested at a NCAA Division I-FCS football and men's basketball game, and the analysis yielded conflicting results. The non-normed fit index (NNFI) and comparative fit index (CFI) indicated the model was a good fit to the data. However, RMSEA and Chi-squared to degrees of freedom ratio indicated mediocre fit, while the Chi-squared statistic, SRMR, and GFI indicated the model poorly fit the data. The contradictory nature of these statistics suggests that the proposed TCSM does not fit the data collected at the football game. Furthermore, only the Chi-squared to degrees of freedom ratio indicated a fit within liberal guidelines for the basketball model test. Overall, the data collected indicates the TCSM might not be an appropriate model for NCAA Division I-FCS.

There are a number of reasons why the TCSM may have fit the data poorly in each model test. First, NCAA Division I-FCS is a relatively under researched area of sport marketing, and therefore, it could be the case that the constructs found in the model are not the most important predictors of customer satisfaction at this level of athletic competition. However, it is unlikely that these historically important variables would have no relationship with satisfaction because they have been shown to be important in other NCAA contexts. It is also possible that the core sport product is less important at the NCAA Division I-FCS level than at other levels of team sport. As indicated by the descriptive statistics, each sample included high percentages of student respondents, and this study took place at a mid-sized institution in a very rural community. It is possible that the sport spectators surveyed in this study would attend these events without regard for core product quality. It also should be noted the football and men's basketball teams involved in this study had particularly poor records in competition. The football team had not won any games in its previous nine contests, and the men's basketball team was in a tie for last place in the conference at the time of data collection. It is very possible that the overall lack of success of these two teams influenced the results of the TCSM tests. Finally, while the sample sizes for each investigation were deemed sufficient, Kline (2010) states that require increasing large sample sizes as the number of observed, and latent variables, increase. This study included ten latent variables and forty observed variables. The high number of variables in the TCSM would be more appropriately measured with a larger sample size. It is important to note that the failure of the TCSM to fit either sample creates large threats to the validity of any conclusions drawn from this

study, and the following discussion of the hypothesized effects of core product quality and team identification should be interpreted with a high degree of caution.

#### *Hypothesized Core Product Quality Effects*

Three hypotheses were developed to examine the relationship that core product quality has with customer satisfaction, team identification, and service quality. Based on evidence provided by Oliver (1993), Hypothesis 1a suggested that an increase in perceived core product quality will result in an increase in customer satisfaction. Both model tests yielded statistically significant relationships between core product quality and customer satisfaction. In the football sample, core product quality indicated a weak relationship of causality, while it exhibited a moderate causal relationship in the basketball sample. Additionally, the Pearson correlation coefficients indicated that core product quality had a small correlation to customer satisfaction in the football sample and a medium to large correlation in the basketball sample. These results suggest that Hypothesis 1a was supported, and that core product quality does have a relationship of causality over customer satisfaction in NCAA Division I-FCS athletics. In this study, it is possible that while the majority of respondents reported high levels of satisfaction with their decisions to attend the games in question, overall customer satisfaction was suppressed by the lack of core product quality in each sample.

Hypothesis 1b stated that increases in perceived core product quality will yield increases in team identification. According to Oliver (1993), core product quality influences customer satisfaction and together these constructs create consumer loyalty. The sport marketing literature indicates team identification is a construct that creates consumer loyalty in team sport settings (Kwon, et al., 2005). Hypothesis 1b attempted to

apply Oliver's (1993) theory to team sport in an effort to more fully understand the development of team identification. The path coefficients for this hypothesized relationship were statistically significant in each model test. Again, the basketball sample yielded a stronger relationship than the football sample. Additionally, the Pearson correlation coefficients indicated that there was a correlation between core product quality perceptions and team identification. The football sample indicated a weak correlation, and the basketball sample indicated a large correlation. These results are sufficient to accept Hypothesis 1b; however, core product quality was shown to explain less than half of the variance in team identification for each model test. Therefore, while core product quality may play a role in developing team identification further investigation is needed to determine the antecedents to team identification at the NCAA Division I-FCS level.

Based on Van Leeuwen, et al.'s (2002) SSSM, Hypothesis 1c stated that as perceptions of core product quality increase perceptions of service quality will increase. Core product quality had statistically significant relationships with service staff quality for both model tests; however, it accounted for only small percentages of the variance in staff quality in each model test. Additionally, the Pearson correlation coefficients indicated that the two constructs had small correlations to one another. All of the sportscape latent variables represented by the six subscales indicated statistically significant relationships with customer satisfaction for both models. This evidence is sufficient to accept the hypothesis that overall service quality influences customer satisfaction. Given that team sport is commonly viewed as a service-based industry (Howat, et al., 1996; Wakefield, et al., 1996), this result is not particularly surprising as it

is generally accepted that in service-based industries, service quality is one of the largest predictors of customer satisfaction and consumer re-purchase intentions. These results suggest that the theories developed by Howat, et al. (1996) and Wakefield, et al. (1996) are supported in NCAA Division I-FCS athletics.

While the overall model did not fit the data collected for either model test, the hypothesized relationships exhibited by core product quality were found to be present. These results indicate that, although some of the suggested relationships are weak, increases in perceived core product quality may yield increases in customer satisfaction, team identification, and perceptions of service quality. Interestingly, each sample indicated relatively high levels of team identification, customer satisfaction, and perceived service quality while showing relatively low levels of perceived core product quality. Since, the hypotheses were supported, it can be said that if this athletic department could improve core product quality they could further enhance satisfaction and service quality perceptions.

#### *Hypothesized Team Identification Effects*

Two hypotheses were developed, as part of the TCSM, to test current sport marketing theory in Division I-FCS. These hypotheses were included in the TCSM to ensure a more complete model of customer satisfaction. It was hypothesized that as team identification increases perceptions of service quality will increase (Hypothesis 2a), and was developed according to Van Leeuwen, et al.'s (2002) SSSM. To test this hypothesis, path coefficients between team identification and each service quality latent variable were calculated for both model tests. In the football model test, all of the paths were statistically significant. However, only one path, team identification's causality over

perceptions of directional signage, indicated a strong relationship. The relationships between team identification and perceptions of service staff, facility aesthetics, facility space allocation, scoreboard quality, seating comfort, and facility layout were all relatively weak. The basketball sample also indicated a strong causal relationship between team identification and directional signage. In addition to the relationship with directional signage, only perceptions of service staff quality, facility aesthetics, and space allocation were statistically significant. Team identification only explained small percentages of the variance in each of these three variables. Team identification did not have significant relationships with scoreboard quality, seating comfort, or facility layout in the basketball sample. The Pearson correlation coefficients that were calculated for each relationship in the two model tests indicated that each variable had at least a small correlation to team identification. Effective directional signage had high correlations in each model test. One possible explanation for the high correlation, and high percentage of variance explained, between team identification and directional signage is that the majority of directional signage at both facilities includes the team logo. It is possible that the relatively high levels of team identification found in the two samples caused fans to notice the presence of the directional signage, thus making the signs more effective in serving their primary function. It is also possible that the use of the team logo on directional signage leaves a greater impression in the minds of more highly identified fans. This would likely draw further attention to the signs making them more effective in directing spectators to their seats, concession stands, or restrooms.

The two samples yielded conflicting results as it relates to the hypothesis that increases in team identification would result in increases in service quality perceptions.

The football model provided evidence to support this hypothesis; however, the basketball model only indicated that team identification was a significant predictor of 4 out of 7 service quality variables. Additionally, team identification only showed a strong relationship with effective directional signage, and the majority of Pearson correlation coefficients, for both models, indicated weak relationships. Overall, this evidence caused Hypothesis 2a to be rejected. This finding is problematic for the development of the TCSM and for the application of existing sport marketing theory to Division I-FCS athletics. These results suggest that team identification may not have an influence over service quality perceptions in Division I-FCS athletics, as the SSSM would suggest. This minimizes the overall importance of team identification at this level of athletic competition, and due to the historical importance of team identification in the sport marketing literature, more research in this context is needed to fully understand the importance of this finding.

Hypothesis 2b suggested that team identification will have a positive relationship of causality with customer satisfaction. The two model tests yielded conflicting results with respect to this hypothesis. The football model test indicated a statistically significant path relationship that predicted a moderate percentage of the variance in customer satisfaction. However, the path relationship in the basketball model was not statistically significant. Interestingly, the Pearson correlation coefficients indicated large correlations for each model test. While it can be said that that team identification shares a strong relationship with customer satisfaction, this evidence fails to support Hypothesis 2b. Therefore, it cannot be suggested that as team identification increases customer satisfaction increases in this study. Again, the rejection of this hypothesis is problematic

for the application of existing sport marketing theory to Division I-FCS athletics. These findings also further question the use of the TCSM in this context.

Overall, both Hypotheses 2a and 2b were rejected in this study. These results suggest that team identification is not as critical in Division I-FCS athletics. Specifically, the relationships between team identification and the variables in the basketball model caused the rejection of these two hypotheses. It could be the case that the basketball sample includes unique features that are causing the failure of team identification to manifest itself according to sport marketing theory. It should also be noted that the overall failure of the TCSM to fit the data for each sample could be playing a role in influencing these unusual findings. Further investigations of team identification are needed at the Division I-FCS level to fully understand the importance of these findings.

#### *Implications*

This study proposed a new theoretical model for understanding customer satisfaction in team sports. The results of this study revealed the TCSM was not an appropriate model for this university's football or men's basketball programs. However, many of the hypothesized relationships in the model were supported. Specifically, it was shown that core product quality does have causal influence over customer satisfaction, team identification, and service quality. Conversely, team identification did not show the causal influence over customer satisfaction and service quality that normally exists in spectator sport. The results of this study provide a number of theoretical, managerial, and future research implications. However, these implications should be interpreted with caution due to the model's overall lack of fit to the data in each sample.

### *Theoretical Implications*

Overall, the TCSM did not fit the data for either model test. The TCSM was developed according to traditional product marketing (Kotler, 1989; Oliver, 1993), service marketing (Cronin & Taylor, 1995), and spectator sport customer satisfaction theory (Van Leeuwen, et al., 2002). The model's failure to fit the data is of critical importance to the implications of this study. First, the TCSM is likely flawed. Specifically, this model is the first to view the core sport product as a construct that has the most influence over customer satisfaction and its determinants. This approach was taken in an attempt to bridge the gap between the study of spectator sport and the study of traditional product and service industries. It is possible that the unique nature of the sport product precludes it from behaving as a traditional product might behave. In particular, the core sport product may not have a causal influence over customer satisfaction as it often does in other industries. However, the individual paths within the TCSM do suggest this causal relationship is present. Yet, the failure to fit the model to the data creates serious concerns regarding the validity of that conclusion. The TCSM theorizes that high levels of core product quality will cause high levels of team identification. For example, the New York Yankees have used their record 27 World Series championships to develop one of the largest fan bases in professional sports. The TCSM suggests that the development of social identification with the Yankees has come as a result of high product quality. Therefore, the TCSM treats core product quality as an antecedent to social identification in spectator sport. However, the Chicago Cubs have also developed one of the largest fan bases in sport; yet, the Cubs have not won a World Series title since 1908. The results of this study, coupled with these two examples, suggest that the

relationship between team identification and core product quality needs to be further examined. The results suggest that there is a relationship between these two constructs, but the model's failure to fit the data could have come as a result of improperly representing the relationship between these two constructs. Instead, it is possible that team identification is the most influential construct in the TCSM.

Second, customer satisfaction in NCAA Division I-FCS may not manifest the same way as it does in professional, minor league, or NCAA Division I-FBS sport. Overall, NCAA Division I-FCS athletics are smaller in scale than professional sport and NCAA Division I-FBS. Less revenue is generated by these athletics programs and fewer dollars are spent on sport marketing efforts. Additionally, spectatorship is significantly less at the NCAA Division I-FCS level, and stadiums and arenas are generally much smaller. These smaller arenas are often managed by fewer staff members, and the predominantly rural location of institutions of this size creates much less competition for a consumer's entertainment dollar. It is possible that these fans are satisfied to have an available sports entertainment option. Furthermore, the majority of spectators surveyed in this study were students of the university. Most NCAA Division I-FCS students are allowed complimentary, or very low cost, admission to athletic events. This university allowed complimentary admission to all students. It is possible that the reduced importance of cost influenced overall satisfaction. Third, team identification may not be as important as value or having a source of sports entertainment at the NCAA Division I-FCS level. However, it seems unlikely that team identification would not influence satisfaction as was indicated by the results of this study because the sport marketing literature indicates it has been important in many other spectator sport settings. Fourth,

each of the samples in this study came from games in which the teams were particularly unsuccessful in competition. Since, core product quality is the most important causal construct in the investigation, this apparent lack of quality could cause the model to be insufficient for the data collected. Finally, Kline (2010) states that confirmatory factor analysis requires very large sample sizes to appropriately fit a specified theoretical model to a set of data. It is possible that the numbers of observed and latent variables in this study are creating a need for a larger sample that can more accurately attempt to fit the model to the data.

### *Managerial Implications*

Customer satisfaction is a primary determinant of consumer intentions to re-purchase a product or service, and it has been shown to influence the development of consumer loyalty. As such, customer satisfaction is one of the most critical constructs any organization must work to facilitate. Team sport satisfaction is unique, and its distinct features must be understood in order to successfully market spectator sport. While the TCSM did not fit the data in this investigation, important predictors of customer satisfaction did emerge. Specifically, core product quality was found to have an influence on customer satisfaction and its determinants. This finding is important for sport marketers.

Numerous sport marketing researchers have argued that the core sport product, the game experience, is an uncontrollable part of team sport consumption (Mullin, et al., 2007, Masteralexis, et al., 2009, & Madrigal, 1995). Therefore, the findings of this study may initially appear troubling given the quality of the uncontrollable core sport product is critical to facilitating customer satisfaction. Sport marketers would then have little control

over satisfaction. The implication of this finding is that sport marketers should feature core product quality in its marketing messages when the team is successful, and should focus on other positive organizational aspects when the team is unsuccessful. Sport marketers cannot control the overall quality of the core product in the same manner typical business executives can, but sport marketing practitioners can utilize the marketing mix to influence consumer perceptions of the organization as a whole. It could be argued that this is precisely what the Chicago Cubs did throughout the late 1980s and 1990s. The Cubs have been a relatively unsuccessful team for the past three decades; yet, the team routinely has drawn in excess of three million fans to games each year over that period of time. Chicago Cubs marketing executives highlighted other features of the organization to influence consumer action. Specifically, the team marketed historic Wrigley Field, and the surrounding neighborhoods to influence consumers to attend games despite poor core product quality. This study suggests that sport marketing executives should find unique organizational advantages, and use them in their marketing messages when their teams are unsuccessful. This will allow the organization to maximize customer satisfaction in the face of poor core product quality.

This study also highlights the importance of team identification and service quality to sport marketers. While the basketball model test did not indicate that team identification was an important construct in influencing customer satisfaction, the football sample did suggest identification is a causal variable. Additionally, there is enough evidence in this study to suggest that service quality is also an important factor that influences customer satisfaction. This finding suggests that sport marketers must work to foster team identification and facilitate quality service encounters by hiring and

training staff that can effectively accomplish both of these goals. Some sport organizations have already recognized the importance of this hiring practice. In a job announcement for a Marketing Services Coordinator, the Ottawa Senators, of the National Hockey League, indicate that they are working toward these purposes by stating that new employees must “work to make a specific impression on our clients. That impression is that of someone who is wowed, overly satisfied, and a raving fan” (Ottawa Senators, 2011). This investigation supports the assumption that consumers will be more satisfied in pleasing physical facilities with well-trained, and responsive, staff. Additionally, this study shows that an individual’s psychological attachment to a sport team will influence that person’s perceptions of the service environment and overall satisfaction. As a result, sport marketing practitioners should continually find ways to remain involved in the lives of their consumers. Technological advances such as social networking and interactive websites have made this particular strategy widely available. The use of social media and interactive web content could serve to further develop the emotional attachment a fan has to a sport team. The continued development of this attachment could increase team identification among sport consumers.

Overall, it is critical for sport marketers to facilitate customer satisfaction. This study has shown that customer satisfaction is influenced by core product quality, team identification, and service quality. Furthermore, the results of this investigation indicate that core product quality and team identification hold causal influences over service quality perceptions. The importance of core product quality and team identification must be recognized by sport marketing executives. However, this study took place in a NCAA Division I-FCS setting. Sport organizations should conduct their own market research to

best assess the role that core product quality and team identification play in influencing customer satisfaction.

#### *Future Research Implications*

The results of this study suggest many potential areas of future research. First, the failure of the TCSM to fit the data in this study suggests that the model should be re-specified then a second attempt should be made to fit the modified TCSM to the data collected. Model re-specification should be conducted in accordance with existing marketing theory, and the discovery of an appropriate model should be followed by another model test in NCAA Division I-FCS. Additionally, the results of this study are difficult to generalize because of the research context. The existing TCSM should be tested in professional sport, minor league sport, and at the NCAA Division I-FBS level prior to completely rejecting the model as descriptive of team sport customer satisfaction.

Kline (2010) states that failure to fit a proposed model to a given data set requires model re-specification. In order to re-specify the TCSM, the bodies of literature discussed in this study should be further examined for other potential relationships of causality. Van Leeuwen, et al. (2002) suggest that team identification is a more important causal construct than core product quality in influencing customer satisfaction. Initial re-specification should propose that higher team identification causes higher perceived core product quality. It is also possible that the win/loss phenomenon discussed by Van Leeuwen, et al. (2002) is not accurately reflected in Zhang, et al.'s (1997) core sport product scale. If this is the case, further data would need to be collected utilizing a scale that more appropriately measures the win/loss phenomenon at the game in question. Additionally, data would need to be collected following the outcome of a game to more

effectively understand the role of the win/loss phenomenon in influencing satisfaction. This model should initially be re-specified with the current data.

This study showed weak relationships between the core sport product, customer satisfaction, team identification, and service quality. The body of literature that exists in each of these areas suggests that the hypothesized relationships would have been stronger in this study. It is possible that Van Leeuwen, et al.'s (2002) separation of the win/loss phenomenon from core product quality is appropriate. Further research should examine the effectiveness of Zhang's (1997) scale in measuring this construct and propose a new scale if deemed necessary. Additionally, future studies should strive to collect data following the completion of sports games to adequately allow consumers to experience the sportscape, service staff, and win/loss phenomenon.

This study loosely supports existing evidence that team identification is a critical construct in the development of customer satisfaction. Additionally, team identification has been shown to be a variable that can assist in the development of consumer loyalty (Kwon, et al., 2005). The importance of team identification leads to a continued need to study this construct. Specifically, future research should investigate the potential antecedents to team identification. This will allow sport marketers to more appropriately develop strategies to foster team identification among consumers of their products and services.

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## APPENDICES

### *Appendix A: Recruitment Letter*

# **EASTERN ILLINOIS UNIVERSITY 2010 FAN SURVEY**

Dear Participant:

You are being invited to participate in a research study by answering the attached survey about your fan experience at an Eastern Illinois University game. There are no known risks for your participation in this research study. The information collected may not benefit you directly. The information learned in this study may be helpful to others. The information you provide will help EIU athletics enhance the fan experience at future games. Your completed survey will be stored at 2220 Lantz Building at EIU. The survey will take approximately 15 minutes to complete.

Individuals from the Sport Management Program, the Institutional Review Board (IRB), and other regulatory agencies may inspect these records. In all other respects, however, the data will be held in confidence to the extent permitted by law. Should the data be published, your identity will not be disclosed, and there are no personally identifying items on the survey.

Taking part in this study is voluntary. By completing this survey you agree to take part in this research study. You do not have to answer any questions that make you uncomfortable. You may choose not to take part at all. If you decide to be in this study you may stop taking part at any time. If you decide not to be in this study or if you stop taking part at any time, you will not lose any benefits.

If you have any questions, concerns, or complaints about the research study, please contact: Clinton Warren at (217) 581-6363.

Sincerely,

**Clinton J. Warren**  
Assistant Professor – Sport Management  
Eastern Illinois University  
Email: cwarren@eiu.edu  
Phone: 217-581-6363

Appendix B: Survey Instrument

<b>Eastern Illinois University Fan Survey</b>	<b>Strongly Disagree</b>	<b>Moderately Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Moderately Agree</b>	<b>Strongly Agree</b>
<b>Please respond to each statement from your perspective. Indicate whether you agree or disagree by circling the appropriate number.</b>							
<b>(1 = Strongly Disagree, 7 = Strongly Agree)</b>							
1. I think I did the right thing by deciding to attend this game.	1	2	3	4	5	6	7
2. I am satisfied with my decision to attend this game.	1	2	3	4	5	6	7
3. I am not happy that I attended this game	1	2	3	4	5	6	7
4. Overall, the EIU Panthers are a high quality team.	1	2	3	4	5	6	7
5. The EIU Panthers have a successful win/loss record.	1	2	3	4	5	6	7
6. The EIU Panthers hold a successful place in the conference standings.	1	2	3	4	5	6	7
7. The EIU Panthers have a storied history and tradition.	1	2	3	4	5	6	7
8. The EIU Panthers have star players.	1	2	3	4	5	6	7
9. Overall, the quality of the away team the EIU Panthers are playing is high.	1	2	3	4	5	6	7
10. The away team the EIU Panthers have star players.	1	2	3	4	5	6	7
11. The EIU Panthers are my team.	1	2	3	4	5	6	7
12. I consider myself a loyal fan of the EIU Panthers.	1	2	3	4	5	6	7
13. Supporting the EIU Panthers is important to me.	1	2	3	4	5	6	7
14. I want others to know I am a fan of the EIU Panthers.	1	2	3	4	5	6	7
15. The concession stands are big enough to handle the crowds.	1	2	3	4	5	6	7
16. The restrooms are large enough to handle the crowds.	1	2	3	4	5	6	7

17. The walkways are wide enough to handle the crowds.	1	2	3	4	5	6	7
18. This stadium allows enough space to handle the crowds.	1	2	3	4	5	6	7
19. The stadium is painted in attractive colors.	1	2	3	4	5	6	7
20. This stadium's architecture gives it an attractive character.	1	2	3	4	5	6	7
21. This stadium is decorated in an attractive fashion.	1	2	3	4	5	6	7
22. This is an attractive stadium.	1	2	3	4	5	6	7
23. The scoreboards are entertaining to watch.	1	2	3	4	5	6	7
24. The scoreboards add excitement to the game.	1	2	3	4	5	6	7
25. The scoreboard provides interesting statistics.	1	2	3	4	5	6	7
26. The stadium has high quality scoreboards.	1	2	3	4	5	6	7
27. There is plenty of knee room in the seats.	1	2	3	4	5	6	7
28. There is plenty of elbow room in the seats.	1	2	3	4	5	6	7
29. The seat arrangements provide plenty of space.	1	2	3	4	5	6	7
30. This stadium provides comfortable seats.	1	2	3	4	5	6	7
31. The stadium layout makes it easy to get the kind of concessions you want.	1	2	3	4	5	6	7
32. The stadium layout makes it easy to get to your seat.	1	2	3	4	5	6	7
33. The stadium layout makes it easy to get to the restrooms.	1	2	3	4	5	6	7
34. Overall, the stadium layout makes it easy to get where you want to go.	1	2	3	4	5	6	7
35. Signs at the stadium help me know where I am going.	1	2	3	4	5	6	7
36. Signs at the stadium give clear directions of where things are located.	1	2	3	4	5	6	7
37. The staff is responsive to my needs.	1	2	3	4	5	6	7
38. The staff is presentable and easily identified.	1	2	3	4	5	6	7

39. The staff is experienced and knowledgeable.	1	2	3	4	5	6	7
40. The staff are qualified, experienced, and consistent.	1	2	3	4	5	6	7

**Please tell us a little about yourself (Please circle one):**

1) How old are you?

18-25            26-35            35-45            46-55            56-65            66 or  
older

2) Are you male or female?

Male            Female

3) How do you define your ethnic background?

African American                            Caucasian                            Hispanic  
American

Asian American                            Native American                            Other

4) How many EIU Panther Football games have you attended this season?

1            2            3            4            5

5) Are you an EIU Panther Football season ticket holder?

Yes            No

6) Are you an EIU student?

Yes            No