In a consumer-oriented paradigm, consumers are viewed as the most valuable assets to a business organization (Blattberg & Deighton, 1999). Indeed, this paradigm focuses on building long-term relationships and enhancing the value of an individual customer, thereby increasing the overall value of a company's customer base (Rust, Zeithaml, & Lemon, 2000). Given the significance of relationships to organizations, the measurement of the effectiveness of relationship-building efforts has become a salient matter for both businesses and marketing scholars in the modern business marketplace. Of note, Rust et al. (2000) stated that one way to quantify and have a better understanding of the value of a company's customer relationships is customer equity (CE).

The concept of CE refers to the sum of the customer lifetime value (CLV), which is defined as the true (net present) value of a “single” customer's current profitability and his or her predicted lifetime contribution to a business organization (Persson, 2012). Valid assessments of CE require a sales based measure (profitability) as well as behavioral and psychological measures (Kumar, 2008; Ryals, 2008; Stahl, Matzler, & Hinterhuber, 2003). Further, sport-based conceptualizations of CE need to consider the direct financial benefits and intangible aspects of behavioral contributions and psychological ties in order to better gain insights into the true value of sport consumers when estimating the consumer's overall asset value to the sport organization (Lachowetz, McDonald, Sutton, & Clark, 2001).

Minimal attention has been given to CE in sport consumer behavior contexts even though this concept has strong support in the extant marketing literatures (Bayón, Gutsche, & Bauer, 2002) and CE for sport organizations may be different than CE for non-sport organizational contexts. Further, in terms of the valuation of sport franchises, very little research has focused on sport consumers as an asset with value. Therefore, the primary objectives of this study are two-fold. First, develop and validate the financial-, behavioral-, and relationship-based components of a CE model applicable to sport organizations. Second, generate an individual sport fan equity (SFE) index to determine the overall sport fan-related contribution (the asset value) to a sport organization. The target population for the study was a convenience sample of NCAA Division I college baseball consumers in attendance at a large Southeastern university's baseball games.

In order to achieve aforesaid objectives, the researchers conducted a two study research design. Study 1 sought to develop a reliable and valid scale to measure SFE. The psychometric properties of the multi-item scales for the SFE constructs was rigorously investigated based on Hinkin (1995) and Hinkin, Tracey, and Enz (1997)'s scale development research guidelines. Specifically, Study 1 included the following seven steps: (1) item development, (2) content adequacy assessment, (3) questionnaire administration, (4) confirmatory factor analysis, (5) internal consistency assessment, (6) construct validation, and (7) replication. Next, in Study 2, the researchers obtained a composite SFE index by using a simple additive weighting (SAW) method. Then, the researchers applied the customer CLV formula in order to calculate financial value. In short, Study 2 mainly explicated the generation of the SFE index.

In Study 1, the hypothesized eight-factor model of SFE was assessed to provide evidence of the reliability and validity of the scale by using the Mplus 6.0 program and SPSS 22.0. Eight constructs were conceptually categorized into three groups. Financial value involved a single construct (Fisher & Wakefied, 1998; Rust et al., 2000). Behavioral value consisted of Positive Word of Mouth, Learning, Cooperative Performance, and Display of Affiliation (Bettencourt, 1997; Bove, Pervan, Beatty, & Shiu, 2009; Groth, 2005; Rosenbaum & Massiah, 2007; Yi & Gong,
Relationship value included Trust, Commitment, and Self-Connection (De Wulf et al., 2001; Henning-Thurau, 2002; James, Kolbe, & Trail, 2002; Mahony, Madrigal, & Howard, 2000). In Study 2, once validation of the measurement model was confirmed, the overall asset value of individual sport consumer (SFE index) was obtained using the SAW method (e.g., Yoon & Hwang, 1995). This approach allows the researchers to integrate different amounts of contributions (i.e., different measurement units) into a single index. Prior to the SAW method, the financial value of an individual sport consumer was converted into predicted future financial value, applying the CLV estimation developed by Gupta and Lehmann (2005).

A seven-factor model consisting of (1) Customer Lifetime Value, (2) Positive Word of Mouth, (3) Learning, (4) Display of Team Affiliation, (5) Trust, (6) Commitment, and (7) Self-Connection was developed by the researchers based on the results of Study 1 (pilot sample = 119; main study sample = 314). These seven factors were represented by financial-, behavioral-, and relationship-based components of SFE. This finding expands upon earlier research that focused on behavioral intention as the primary outcome of a sport consumer’s behavior by applying CLV (i.e., the sales-based measure) to the financial value of the sport consumer, thereby providing the measurement of the overall outcome of a sport consumer’s behavior.

With respect to Study 2, after conducting a series of procedures using the CLV estimation and the SAW method, the average CLV of the focal baseball team fans was $1280.51. The highest CLV was $8312.68 whereas the lowest CLV was -$36.41. The average SFE of the participants was estimated as .432. This can also be interpreted as score of 43.2 out of 100. The average score of financial value was 8.5 out of 55.25. The average score of behavioral value was 15.3 out of 22.37. The average score of relationship value was 19.4 out of 22.37.

The SFE index (score) is a standardized measure, represented by a single number ranging from 0 to 100, that reflects the overall asset value (e.g., capacity to contribute) of individual sport consumers. A fan with a higher score tends to make greater contributions to a particular sport organization’s bottom line. It also is one of the most critical determinants of overall franchise value (Humphreys & Mondello, 2008). In addition to the composite SFE index, close examination of individual component scores allows sport organization managers to more precisely identify the best or worst individual contributions to the sport organizations. That is, evaluating individual rather than composite factors should provide sport organizations with more precise customer information that is not available with composite scores alone.

The asset value of the sport consumers surveyed as a part of this study provides essential criteria for estimating overall sport franchise value. The present study provides a comprehensive/simultaneous measurement of customer profitability, behavioral contributions, and psychological commitment, all of which are vital to a sport practitioner's ability to better estimate the true value of sport consumers. In practice, the multi-dimensional SFE scale can serve as a useful diagnostic tool for a sport organization. Specifically, this tool can be used by sport organizations to better tailor marketing strategies to their customers as well as determine pathways to more effectively develop and grow an ardent sport fan base. The SFE scale can also serve as a yardstick for sport organizations to segment their fan bases, monitor them over time, and compare them across competitors. Further, measuring SFE provides a useful proxy for the value of the fan base for the sport organization. That is, the scale functions as a critical estimate and criterion for the overall sport team valuation. For instance, generating an SFE index and its component scores can be utilized by teams to identify SFE rankings between sport teams in hometown and/or national markets. In closing, the results of this study further advance our knowledge of the overall structure of SFE and also provide some research opportunities to extend the SFE literature, thereby growing the SFE knowledge base in the field of sport management.