# CREATING SHARED VALUE THROUGH SPORT: INVESTIGATING THE RELATIONSHIP BETWEEN SPORT PARTICIPATION AND CUSTOMER PURCHASE INTENTION

# A DISSERTATION SUBMITTED TO THE FACULTY OF THE UNIVERSITY OF MINNESOTA BY

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#### **ABSTRACT**

Creating shared value (CSV) is defined as "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates" (Porter & Kramer, 2011, p. 66). Because of its potential in creating social and economic outcomes simultaneously, CSV has been adopted by a number of major corporations such as IBM and Nestle. Despite the preliminary evidence indicating the presumed salience of CSV in improving sport organizations' competitiveness (Hills, Walker, & Barry, 2019; Walker & Hills, 2017), research on CSV in sport settings is sparse. Moreover, there lacks a comprehensive framework to depict the mechanism of how customers are influenced by an organization's CSV performance (Dembek, Singh, & Bhakoo, 2016).

The purpose of this dissertation is to examine how customers' intention of buying products of a certain sport brand is increased by promoting their sport participation through a sport organization's CSV. Because CSV is relatively a new concept in the field of sport management, this study first illustrated how CSV was implemented in sport using a specific case—Nike+ Run Club of Shanghai (NRCSH). The theoretical framework was then established based on previous research on autonomy-supportive coaching behavior and self-congruity theory (Alfermann & Stoll, 2000; Aşçı, 2003; Hosany & Martin, 2012). Specifically, it proposed that customers' running participation would increase when they perceive autonomy-supportive behaviors, including caring, praising, and role modeling, from the NRCSH employees. The increased running participation, in turn, was expected to influence the customers' sport self-concept as runner. The framework further hypothesized that sport self-concept as runner and brand-

extension fit both had a positive association with brand-self congruity. In particular, brand-extension fit was posited to moderate the relationship between sport self-concept as runner and brand-self congruity. The brand-self congruity then was postulated to promote customers' purchase intention of a certain brand. Moreover, running participation was hypothesized to have a direct association, as well as an indirect association through the mediation of sport self-concept as runner and brand-self congruity, with purchase intention.

To test the hypotheses, this dissertation collected data from registered customers of the NRCSH who participated in the program within the three months prior to the data collection. A time lagged two-wave design was applied, in which customers' perception of caring, praising, and role modeling, and running participation were measured at Time 1 and sport self-concept as runner, brand-extension fit, brand-self congruity, and purchase intention were measured at Time 2. Partial least square structural equation modeling (PLS–SEM) analysis was employed to analyzed the data (N = 311).

Results of the PLS–SEM indicated that caring was the only significant positive intervention that promoted customers' running participation. The increased running participation had a positive association with sport self-concept as runner. The sport self-concept as runner and brand-extension fit were both significant determinants of brand-self congruity, which then led to the enhancement of purchase intention. A test of relationship between running participation and purchase intention revealed that increased running participation promote one's intention of purchasing running related product through the enhancement of self-concept as runner and the perception of brand-self congruity. Thus, sport self-concept as runner and brand-self congruity fully mediated the

relationship between running participation and purchase intention. Additionally, the moderating effect of brand-extension fit on the relationship between sport self-concept as runner and brand-self congruity was supported.

Overall, the findings of this dissertation contribute to the sport management literature by depicting a potential process for sport organizations to implement CSV. Furthermore, it provides an understanding of how customers, as an important beneficiary, are influenced by organizations' CSV performance.

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### **CHAPTER 1**

#### **INTRODUCTION**

How sport organizations can generate positive social impact has been an ongoing agenda in sport management for more than a decade (e.g., Babiak & Wolfe, 2009; Trendafilova, Babiak, & Heinze, 2013; Hills, Walker, & Barry, 2019; Walzel, Robertson, & Anagnostopoulos, 2018). Socially responsible initiatives gained great development among sport companies, which entail for-profit organizations providing consumers with products (e.g., goods, services, expertise) that relate to sports, fitness, leisure and recreation (Milano & Chelladurai, 2011). To show their efforts in "giving back" to communities, sport companies founded specific departments to operate social programs and published annual social responsibility reports. The continuous development of social initiatives in sport is worthy of praise; however, most social programs are not sustainable in delivering lasting beneficiary outcomes (e.g., enhancements in residents' health; Walker, Hills, & Heere, 2017; Walzel et al., 2018). These failures likely occurred because the firms' core businesses had weak connections with the social programs (Walzel et al., 2018). As recent research highlighted (e.g., Heinze, Soderstrom, & Zdroik, 2014; Kolyperas, Anagnostopoulos, Chadwick, & Sparks, 2016; Walker & Hills, 2017), in order for sport organizations to leverage their efforts to benefit society, these efforts must be strategically linked with the achievement of their business objectives (e.g., revenue generation).

In the business and management domain, Porter and Kramer (2011) proposed an emerging concept of creating shared value (CSV) to guide strategies for companies to

advance competitiveness by making business achievements and benefiting society synergistically. CSV is defined as "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates" (Porter & Kramer, 2011, p. 6). It serves as a balance point where companies leverage corporate assets and expertise for business opportunities alongside fulfilling specific social needs (de los Reyes, Scholz, & Smith, 2017; Dembek, Singh, & Bhakoo, 2016). This social-economic balance distinguishes CSV from other types of social initiatives, such as philanthropy and cause-related marketing, which emphasize raising social good without establishing a direct connection to the core of business (Porter & Kramer, 2011).

To demonstrate CSV as an innovative strategy for facilitating companies' involvement in solving social problems, Porter and Kramer (2011) proposed three areas for CSV implementation: (1) reconceiving products and markets, (2) redefining productivity in the value chain, and (3) building supportive industry clusters. The first area entails rethinking the relationship between a company's products and business opportunities and stakeholders' (i.e., customers' and communities') needs. The second area refers to the internalization of CSV in a company's definition of productivity in its value chain, such as reducing greenhouse gas emission in logistics and raw materials consumption in production. The third area refers to the importance of creating a supportive environment that surrounds a company, including cooperating with universities for the development and recruitment of future employees.

While the latter two areas are supported by some empirical evidence (Ghasemi & Nazemi, 2014; Hsiao & Chuang, 2016; Spitzeck & Chapman, 2012), research on the first

area is relatively insufficient. Furthermore, previous research on CSV was conducted in either an intra- or an inter-organization context, and mostly tested outcomes from the companies' side (e.g., Corazza, Scagnelli, & Mio, 2017; Ghasemi & Nazemi, 2014; Hsiao & Chuang, 2016; Maltz & Schein, 2012; Spitzeck & Chapman, 2012). Hence, it is unclear whether the examined CSV strategies are effective in fulfilling social needs. The literature lacks empirical support of how people are benefited from companies' CSV strategies. Since the rationale of CSV emphasizes that the economic benefit gained from social purpose is more valuable than that obtained by merely improving productivity (Porter & Kramer, 2011), an explicit evaluation of social outcomes contributes to legitimizing the shared value.

Because of its potential to create social and economic outcomes simultaneously, which expands the total value produced, CSV has been adopted by major corporations such as IBM and Nestle (Kolb, 2018). Within the sport industry, Adidas has partnered with an environmental organization since 2015 to recycle ocean waste and use the recycled materials to produce sportswear (Adidas, 2017). Such activity is consistent with Porter and Kramer's rationale of CSV, which closely associates social benefits (i.e., reducing ocean pollution) with a company's core business (i.e., producing sportswear). As a result, it has improved Adidas's productivity by not only contributing to the reduction of ocean pollution (i.e., creating social value) but also increasing the company's annual revenues by driving sales among ecologically conscious customers (i.e., creating economic value). As another example, Detroit Lions' *Living for the City* program was initiated to contribute to the revitalization of communities in Detroit city (Heinze et al., 2014). According to Heinze et al. (2014), this program works in a way that

emphasizes the role of the Lions in identifying relevant social problems, and collaborating and helping the development of communities and nonprofit organizations to deal with the problems. This case has high relevance to the notion of enabling the development of local clusters (Porter & Kramer, 2011).

The examples provided above, as well as other anecdotal evidence reported in the literature (Hills et al., 2019; Walker & Hills, 2017), indicate that sport companies may serve as ideal settings to advance the understanding of CSV because of the close connection between sport participation and health outcomes such as physical and psychological well-being (Aizawa, Wu, Inoue, & Sato, 2018; Pawlowski, Downward, & Rasciute, 2011). Encouraging sport participation for health can enable business opportunities for sport companies as well. First, by providing services that promote sport participation and healthy living, a sport company will likely enhance beneficiaries' affinity with sport. Second, when the beneficiaries constantly receive the company's services on sport participation, their psychological connections with the company will also increase. Finally, the increased sport participation and strengthened connection with the sport company may result in increased purchase intention from customers (e.g., Casper, Gray, & Babkes Stellino, 2007; Kwon, Trail, & James, 2007; Wicker, Breuer, & Pawlowski, 2010).

#### **Statement of the Problem**

To date, no comprehensive framework exists that explains how a company embracing CSV simultaneously advances its economic and social conditions through sport. Additionally, little research has investigated how customers can be benefited from companies' CSV strategies.

In the sports domain, encouraging sport participation has been recognized as an important contributor to health and well-being (Baker, Fraser-Thomas, Dionigi, & Horton, 2010; Pawlowski et al., 2011), as well as increased demands in sport facilities, equipment, and services (Casper et al., 2007; Lera-López & Rapún-Gárate, 2007; Wicker et al., 2010). Physical inactivity, which entails a person failing to engage in at least three days (20 minutes per day) of vigorous exercises in a week, has been a global issue (Kohl et al., 2012). This issue is especially serious in developing countries, such as China and Brazil, where there is a large gap of professional practitioners who provide sport training services to the public (Kohl et al., 2012). In this regard, there is an opportunity for sport companies, as experts in sport promotion, to create shared value by promoting sport for health.

The consumer behavior literature suggests that people's decision of buying a product is determined mainly by their functional and symbolic needs (e.g., Hosany & Martin, 2012; Park, Jaworski, & MacInnis, 1986; Reddy & Bhat, 1998; Smith & Colgate, 2007). Functional needs refer to the utilitarian value or attributes of buying products for achieving actual goals (Reddy & Bhat, 1998; Smith & Colgate, 2007). In the context of sport, the functional needs imply a direct relationship between sport participation and sport consumption in which the purpose of purchasing is to directly support sport participation. For example, people who run three miles per day are more likely to buy shoes with athletic functions than those who do not (Casper et al., 2007; Wicker et al., 2010). In this regard, increased sport participation (i.e., frequency and intensity) would directly result in the increased purchase of sport products.

Symbolic needs refer to buying a product for self-expression or self-enhancement (Reddy & Bhat, 1998; Smith & Colgate, 2007). In sport, the symbolic needs (i.e., symbolic purchase) present an indirect relationship between sport participation and sport consumption in which the purpose of purchasing is to express one's self-concept. For example, sport fans are willing to buy a team-licensed product to reinforce their image as fans of their favorite teams (Kwak & Kang, 2009).

Building upon the concept of symbolic purchase and self theory, Sirgy (1982, 1985) proposed self-congruity as a core element for symbolic purchase, which mediates the connection between a consumer's self-concept and purchase intention. According to Sirgy, self-concept refers to an individual's beliefs about images of him/herself, and brand self-congruity is defined as a match between value-expressive attributes of a product or brand and customers' self-concept (Johar & Sirgy, 1991). Following the initial definition of brand self-congruity, Sirgy, Grewal and Mangleburg (2000) identified four different types of self-concept for achieving brand-self congruity: (1) actual-self (i.e., how a person thinks him/herself really is), (2) ideal-self (i.e., how a person would like to see him/herself), (3) social-self (i.e., how others see a person), and (4) ideal-social self (i.e., how a person would like to be seen by others). Among them, the effects of actualself and ideal-self have been widely adopted as the most significant factors in investigating the behavioral changes of customers (e.g., Ekinci & Riley, 2003; Hang, 2002; Hosany & Martin, 2012; Sirgy et al., 2000). In this regard, brand-self congruity entails a match between a customer's self-concept and user image of a product, which leads to the identification of a favorable product or brand that, in turn, increases the likelihood of buying the product/brand (Aguirre-Rodriguez, Bosnjak, & Sirgy, 2012;

Hang, 2002; Liu et al., 2012). For example, when a customer perceives his/her actual or ideal self-concept is congruent with the user image of a product, the customer would be satisfied by purchasing the product that meets his or her expectation.

Drawing upon the above discussion, this dissertation study attempted to explore how a sport company can drive customers' intention of purchasing its products by encouraging sport participation. In particular, the current study assesses the role of self-concept in connecting the relationship between increased sport participation and purchase intention, which is proposed as a central way to address CSV through sport. Due to the high rate of physical inactivity and the shortage of resources from public and nonprofit organizations in supporting sport participation, finding alternative ways that promote sport participation for health outcomes has received great attention by both scholars and practitioners (Kohl et al., 2012). Given the positive effect of sport participation on health outcomes and increased purchase of sport products, a focus on sport participation represents a promising way of implementing CSV for sport organizations. Thus, the current research examined whether CSV can be adopted by sport companies as a way to encourage sport participation for the health of population.

# Significance of the Study

By proposing a mechanism of how shared value can be created in sport, the current study would make the following contributions. First, this study seeks to make a theoretical contribution to the CSV literature by creating a framework for reconceiving products and markets in relation to sport companies, which would fill in the limitation that the first area of the CSV implementation is under-researched. In particular, this framework addressed the rationale of shared value creation by identifying the role of self-

concept and brand-self congruity in connecting the increased sport participation (social outcomes) with sport consumption (economic outcomes). According to Shavelson, Hubner, and Stanton (1976), self-concept represents how people define themselves in terms of their achievements and performance. When an individual defines him/herself in terms of sport experience and performance, the self-concept is named as sport self-concept. Alfermann and Stoll (2000) posit the frequency and intensity of sport participation positively strengthen ones' sport self-concept. Connecting with the self-congruity theory, the enhanced sport self-concept would then drive sport consumption (Hosany & Martin, 2012). Hence, the current study would contribute to the literature by demonstrating how sport self-concept (a) may be influenced by increased sport participation and (b) may affect the purchase intention.

Second, this study seeks to contribute to sport management research by introducing shared value creation as an important research focus. By testing the framework in a sport setting, the current study would show how shared value can be created in sport and hence propose a new way that encourages sport organizations' involvement in solving social problems and generating positive social impact (Walker & Parent, 2010). According to Walker and Hills (2017), the NFL's Play 60s program, which provides free football-related activities to children as part of the NFL's CSV efforts, could encourage sport participation among the kids, and further stimulate their interests in football and expand fan base.

Third, much of the research on brand-self congruity focuses on identifying marketing strategies that companies can take to shape the user image of their products, which may influence potential customers' perceptions of congruence between their self-

concept and user image of the companies. There lacks research that examines the possibility of improving brand-self congruity by influencing or changing customers' self-concept. By testing the connection between sport participation and sport self-concept, the current study focuses on investigating whether brand-self congruity can be promoted from customers' ends.

Finally, this study attempts to make a practical contribution to sport organizations by introducing a CSV model of business operations which integrates social value into the process of economic value creation and increases the organizations' total value.

According to Porter and Kramer (2011), the perspective of shared value "focuses on improving growing techniques and strengthening the local cluster" and "leads to a bigger pie of revenue and profits" (p. 5), which can benefit the company and customers simultaneously. Therefore, illustrating the process of how CSV can be implemented in a sport setting can facilitate sport organizations' active involvement in solving social problems while enabling them to enjoy significant business returns.

## **Purpose of the Study**

The purpose of this study is to explore how CSV can be implemented in a sport setting. To be specific, this study aims to investigate how sport companies can facilitate customers' purchase intention by encouraging their sport participation. To this end, the current study first attempts to identify determinants that promote customers' sport participation. Second, it intends to test whether sport participation increased by a CSV activity has a direct association with customers' sport self-concept, which then leads to purchase intention. Third, the mediating effects of sport self-concept and brand-self congruity on the relationship between sport participation and purchase intention. Third,

this study examines the moderating effect of a brand-extension fit on the relationship between sport self-concept and brand-self congruity.

### **Pilot Study**

#### **Purpose of the Pilot Study**

In order to ensure that the research setting of this study meets the criteria of CSV, and to identify specific types of behavior that employees adopt to encourage customers' running participation, a pilot study was conducted in the Nike+ Run Club Shanghai (hereafter NRCSH).

For this pilot study, semi-structured interviews were conducted with ten senior employees of NRCSH (e.g., coaches and pacers) about their perception of Nike's CSV and how they interact with customers during training courses. According to Schmitt and Renken's (2012) CSV conceptualization, a CSV strategy would be established by associating social goals with diverse goals directing business activities. Hence employees whose work contributes to their organizations' CSV may perceive both social and business goals directed by their organizations, such as sport benefit (the unique value relates to the research setting), social benefit, and economic benefit.

#### **Research Context**

NRCSH is a free marathon training program launched by Nike, one of the largest sportswear manufacturer in the world, in 2014. NRCSH serves to inspire people to go out and run for healthy living, which contributes to the issue of physical inactivity in China. Being aware of an underserved market related to sport participation, Nike implemented a strategy for shared value creation, including a series of promotional activities, such as launching the NRCSH, sponsoring and organizing marathon events, and fostering runner

communities, to increase and sustain the population of runners while increasing the awareness of Nike's brand and driving sales of its running related products (NRC, n.d.). Among these activities, the NRCSH plays the most central role because it not only increases the number of runners (who can become Nike's future customers) by cultivating people how to run but also increase the exposure of Nike's brand and products among the runners. The integration of both social and economic objectives qualifies the NRCSH as an example of CSV as defined by Porter and Kramer (2011).

#### **Participants and Procedures**

Data were collected through semi-structured interviews with NRC coaches and senior pacers, who are regarded as Nike's frontline employees. Respondents were recruited using purposive sampling, a sampling method that first identifies important sources of variation in the population and then selects a sample that reflects the variation (Robinson, 2014). I contacted the respondents by email and explained the purpose of the interview. The email enabled the employees to opt out of the interview by not responding. Four coaches and six senior pacers were included in the final sample. The average length of service of the respondents was three years, and the longest serving interviewee had four years of experience with NRC. More detailed research procedures including analysis are provided in CHAPTER 3.

# **Findings**

A number of emergent themes were identified in relation to employee perceptions of CSV and types of behavior that facilitates running performance.

For the employee perception of CSV, the results are consistent with Schmitt and Renken's (2012) proposition of the shared value system. NRC is operated following a

values statement— "SEVEN TRUTH" (NRC, n.d.). Three different types of goals were identified, including developing marathons at the grassroots level (sport benefit), leading a healthy lifestyle among the population (social benefit), and attracting customers and promoting sales (economic benefit). Regarding primary types of behavior that motivate people to keep participating in running, the following three themes were identified through the interviews: caring, praising, and role modeling. More detailed information is provided in CHAPTER 3.

#### Discussion

The findings of this pilot study indicated that the NRCSH—the research setting of the main study—serves as an appropriate context for exploring mechanisms of the CSV implementation. Furthermore, the identified types of employee behavior, including caring, praising, and role modeling, that facilitates customers' participation in running can be examined as exogenous variables for the main study, which are proposed to increase customers' sport participation (i.e., marathon running). The three themes of behavior, then, will be adopted to define the constructs that capture employee behavior in the main study to examine the extent to which customers perceive these constructs as well as how these perceptions are associated with customers' level of sport participation.

#### **Theoretical Propositions**

CSV refers to a company's strategy that leverages business opportunities and remains sustainable by solving relevant social problems (Porter & Kramer, 2011). Unlike the traditional business model that pursues revenue growth by fulfilling demands of those who are able to pay, the CSV model aims to create more value by creating new market demands in underserved markets (Pfitzer, Bockstette, & Stamp, 2013). The current study

proposes a theoretical framework (see Figure 1) that demonstrates how shared value is created in a sport setting. In particular, the study proposes that a sport manufacturer can drive sales of running shoes directly by promoting people's running participation, and indirectly by enhancing their perception of congruence between their sport self-concept as runner and user image of the sport brand.

First, building on the self-determination theory (SDT; Coatsworth & Conroy, 2009; Gillet, Lafrenière, Vallerand, Huart, & Fouquereau, 2014; Ryan & Deci, 2000) as well as the findings of the pilot study, the current framework posits that customers' perception of autonomy support when interacting with the NRCSH employees will increase the customers' running participation (i.e., frequency and intensity). Specifically, the NRCSH employees' autonomy supportive behaviors primarily include the following three categories: (a) caring, (b) praising, and (c) role modeling. Customers' perceptions of the three types of autonomy supportive behavior motivate them to participate in running (H1a–H1c). Drawing from the literature on sport self-concept (e.g., Biddle & Asare, 2011; Coatsworth & Conroy, 2009; Liu, Wu, & Ming, 2015; Spruit, Assink, van Vugt, van der Put, & Stams, 2016), the increased running participation will then enhance the customers' sport self-concept as runners (H2), which demonstrates how people would define themselves in relation to their own running skills and performances (Alfermann & Stoll, 2000).

Second, based on the literature on brand-self congruity (e.g., Hang, 2002; Hosany & Martin, 2012; Kwak & Kang, 2009; Sirgy et al., 2000), the current framework proposes that customers who have a high self-concept as a runner are likely to find a fit with a running-related brand (H3), which is represented as brand-self congruity. In turn,

the brand-self congruity drives the customers to buy products provided by the running-related brand (H6). To this end, brand-self congruity is expected to mediate the relationship between sport self-concept as runner and purchase intention (H7).

According to the reciprocal effect of a brand extension on its parent brand (e.g., Dwivedi, Merrilees, & Sweeney, 2010; Loken & John, 1993; Walsh & Ross, 2010; Williams, Rhenwrick, Agyemang, & Pantaleoni, 2015), customers' perceived fit between a brand extension and its parent brand would enhance their brand-self congruity with the parent brand. This study, hence, hypothesizes that customers' perceptions of brand-extension fit between the NRCSH (i.e. the brand extension) and Nike (i.e. the parent brand) will be positively associated with their perceived congruence between self-concept with the user image of Nike (H4). Additionally, this perceived fit is expected to moderate the relationship between people's sport self-concept as runners and brand-self congruity (H5).

Finally, from the perspective of functional purchase (Wicker et al., 2010), it is proposed that people's intensive running participation will directly increase their purchase intension to sport products (H8). In addition, drawing on the perspective of symbolic purchase (Ekinci & Riley, 2003; Sirgy et al., 2000), this framework proposes that sport self-concept as runner and brand-self congruity sequentially mediate the relationship between running participation and purchase intention (H9). The theoretical background for these hypotheses is provided next.

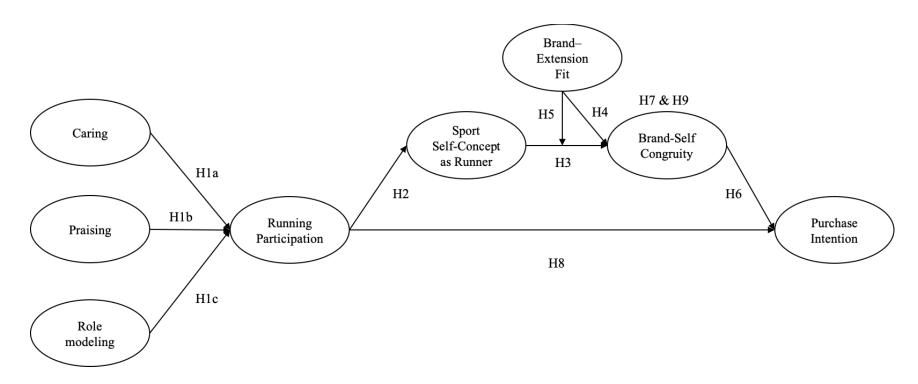


Figure 1.1. Theoretical Framework

#### **Hypotheses Development**

### **Perception of Autonomy Support Influencing Sport Participation**

Substantial research shows that people are likely to participate and invest in sport if they are satisfied with their previous sport experiences (e.g., Chatzisarantis & Hagger, 2009; Gillet et al., 2014; Sebire, Standage, & Vansteenkiste, 2009; Teixeira, Carraça, Markland, Silva, & Ryan, 2012). One prevalent theory for studying how people are motivated to keep participating in sport is SDT. According to Ryan and Deci (1985; 2000), SDT was initially developed to explain the relationship between specific motivational states and intended behavioral changes. In particular, they postulated a continuum to depict different types of motivation on the basis of level of perceived autonomy, including amotivation (not motivated), extrinsic motivation (motivated based on rewards, praise, or punishment), and intrinsic motivation (motivated based on pleasure, enjoyment, or personal values; Ryan & Deci, 2000). Intrinsic motivation represents an extreme of autonomous motivation. Generally speaking, the more autonomous motivation people perceive, the more likely they are to act persistently. The autonomous motivation to behavior change leads to many positive outcomes, such as pleasure, engagement, persistence, and subjective well-being (Ryan & Deci, 2000; Sebire et al., 2009).

In the sport domain, scholars used SDT to explain why people keep participating in sport. This line of research suggests that promoting people's autonomous motivation to sport improves their adherence to sport participation, which in turn leads to the positive outcomes (Coatsworth & Conroy, 2009; Gorin, Powers, Koestner, Wing, & Raynor, 2013; Hagger & Chatzisarantis, 2007). SDT posited the approach that promotes

autonomous motivation for behavioral persistence as autonomy support. The autonomy support or autonomy-supportive behavior, which refers to contexts or behaviors that allow the flourish of intrinsic motivation by satisfying three basic psychological needs, competence, autonomy, and relatedness (Ryan & Deci, 2000). The perception of autonomy support refers to people's beliefs that their actions are to express their self-concept rather than responding some external reinforcements (Conroy & Coatsworth, 2007). A high level of perceived autonomy support leads to the satisfaction of the basic psychological needs from the context. As a result, people are open to instructions and willing to incorporate the instructions into practice (Ryan & Deci, 2000).

Previous research in physical education and athletic training contexts demonstrates that students and athletes' perceptions of their physical education teachers and coaches' attention, instructions, and positive feedback are associated with their autonomous motivation for persistent sport participation and enhanced athletic performance (Amorose & Anderson-Butcher, 2007; Coatsworth & Conroy, 2009; Ryan, Williams, Patrick, & Deci, 2009). In particular, Coatsworth and Conroy (2007, 2009) identified two major behavioral categories of autonomy support: interest and praise. Of these, interest demonstrates coaches' connections with athletes, such as showing their trust to the athletes and interests in understanding the athletes' feelings and views. Praise entails the coaches' attentions and acceptance on behalf of the athletes' sport skills and performance. According to Coatsworth and Conroy, while both behavioral categories showed significant associations with an individual's needs satisfaction, competence and relatedness had stronger associations with praise than with interest. Overall, when a student-athlete perceives interest and praise from his or her coach, he or she is motivated

to participate in sport persistently. In a separate study, Amorose and Anderson-Butcher (2007) also found that perceived autonomy support was constructed as a second-level factor which includes two behavioral categories: (1) coaches listen to, care about, and understand views of athletes; and (2) coaches express positive support to athletes' performance. Athletes' perception of the two categories predicted their satisfaction of autonomy, competence, and relatedness, which then resulted in persistent sport participation (Amorose & Anderson-Butcher, 2007). Similar results were observed in research focusing on adults (Brown & Fry, 2014; Moustaka, Vlachopoulos, Kabitsis, & Theodorakis, 2012; Silva et al., 2011). For example, Brown and Fry (2014) found that customers' decision to participate in a fitness club was determined by their perception of autonomy support (e.g., perception of being cared and respected by trainers) which enhanced their confidence (or autonomy) to sustain participation.

Drawing upon the discussion above, it is proposed that the NRCSH employees motivate customers' running participation by increasing their perception of autonomy support. Being aware of the difference between the NRCSH and a traditional athletic team, a pilot study was conducted to assess the exact autonomy-supportive behaviors adopted by the NRCSH employees (for further details see in the methodology part of the pilot study in CHAPTER 3). Based on the findings of the pilot study included in the current research, the autonomy support of the NRCSH employees may consist of three behavioral categories: caring, praising, and role modeling.

**Caring.** Caring entails the extent to which an individual perceives "a particular setting to be supportive, friendly, and respected" (Brown & Fry, 2014, p. 209). Previous research has linked trainees' perceptions of caring offered by trainers to increased

motivational outcomes of sport participation (Annerstedt & Lindgren, 2014; Coatsworth & Conroy, 2009; Fry & Gano-Overway, 2010). For example, based on a comparison between caring-based and traditional progress-focused training programs, Fry and Gano-Overway (2010) proposed caring as a reliable predictor of consistent and active sport participation. According to the pilot study (for details see in the methodology part of the pilot study discussed in CHAPTER 3), NRCSH employees interviewed indicated that showing to a customer how they care about him or her is their major strategy adopted in training courses. Taken together, it is proposed:

*Hypothesis 1a:* Customers' perceived caring from NRCSH employees motivates their running participation.

Praising. Praising refers to an expression of positive affect about task-oriented behavior (Coatsworth & Conroy, 2009). Empirical studies suggest that praise has a significant impact on encouraging and maintaining sport participation (Pedersen, 2002; Smith, Fry, Ethington, & Li, 2005). For instance, Pedersen (2002) found that praise, as an extrinsic factor, has a direct effect, as well as an indirect influence through enhancing intrinsic factors such as self-worthiness and competence, on facilitating individual sport performance. In an experiment, Chalk and Bizo (2004) found that students who were praised for their appropriate behavior from teachers were more likely to maintain their behavior in the future. Also, athletes who perceived a high amount of praise from their coaches had a higher possibility of improving their sport skills (Smith et al., 2005). In the case of the NRCSH, the employees indicated that praising customers' performance is their major behavior to encourage participation. It is then hypothesized:

*Hypothesis 1b:* Customers' perceived praising from NRCSH employees motivates their running participation.

**Role modeling.** In addition to the supportive climate created by trainers, serving as a role model for trainees is equally important to their sport participation. A role model is defined as "a cognitive construction based on the attributes of people in social roles an individual perceives similar to him or herself to some extent and desires to increase perceived similarity by emulating those attributes" (Gibson, 2004, p. 136). The current study conceptualizes sport employees as role models, rather than mentors, to their customers because the employees may not have a direct interaction with each customer personally. Extant research has shown that an individual's perception of high similarity with his or her role models based on such attributes as age, gender, and appearance will motivate the person's admiration and imitation (or ideal self-concept), and in turn facilitate sport participation (Crosswhite, Wilde, & Vescio, 2003; Vescio, Wilde, & Crosswhite, 2005). In Doyle and Wilde's (2001) study, a role model from a familiar or every day environment was more effective than celebrities in motivating desired behavior. Based on a survey from 357 respondents, Vescio et al. (2005) found that peers were frequently chosen as role models in the sport domain because the high similarity with peers enhances the individual's belief of self-efficacy and motivates their sport participation. According to the pilot study discussed in CHAPTER 3, most of the NRCSH employees and their customers were in the same age range (25 to 35 years old). Therefore, if customers perceive that the NRCSH employees as role models when participating in training, they may be more likely to maintain and improve their sport participation. The study assumes:

*Hypothesis 1c:* Customers' perceived role modeling effect exerted by NRCSH employees motivates their running participation.

## **Sport Participation Influencing Sport Self-Concept**

Self-concept is defined as the cognitive and affective understanding of who and what we are regarding experiences and environments (Shavelson et al., 1976). Shavelson et al. (1976) proposed self-concept as a multidimensional construct that can be enhanced from various aspects, such as academic performance, physical appearance, and sport performance. Specifically, when people define themselves based on their sport performance, their self-concept will be strongly related to sport, which is known as sport self-concept (Alfermann & Stoll, 2000).

The sport psychology literature posits the sport self-concept as an effective predictor for the attainment of such positive outcomes as advanced sport participation and performance, physical and mental health, and social cohesion (Donaldson & Ronan, 2006; Marsh, Gerlach, Trautwein, Lüdtke, & Brettschneider, 2007; Slutzky & Simpkins, 2009). Because of the salience of sport self-concept in promoting sport participation and achieving positive outcomes, attention has been paid to identify ways to increase people's sport self-concept. The sport psychology literature demonstrates a reciprocal effect between sport self-concept and sport participation, where one's initial sport self-concept determines sport participation, and then the subsequent engagement in sport further enhances his or her sport self-concept (e.g., Marsh, Gerlach, Trautwein, Lüdtke, & Brettschneider, 2007; Wilson & Rodgers, 2002). Building on the reciprocal effect, a body of research argues the possibility of strengthening sport self-concept by reinforcing sport participation (Alfermann & Stoll, 2000; Aşçı, 2003; Hagger, Chatzisarantis, Culverhouse,

& Biddle, 2003). Based on two experiments among adults, Alfermann and Stoll (2000) found that those who consistently participated in sport for six months reported a stronger sport self-concept than those in control groups who did not participate in sport during the same period. Based on a study of 181 undergraduate students, Lindwall and Hassmen (2004) found that both frequency and duration of exercises strongly predicted the students' sport self-concept. In addition, the results of Beaton et al.'s (2010) study indicated that persistent participation in running would strengthen people's perception of centrality and importance of running to themselves, which then leads to future running participation. Collectively, it is hypothesized:

*Hypothesis 2:* The levels (frequency and intensity) of running participation is positively associated with customers' sport self-concept as runners.

#### **Sport Self-Concept Influencing Brand-Self Congruity**

The consumer behavior literature demonstrates that people make decisions to purchase certain products or brands as a result of pursuing the congruence between their actual- and ideal-self (Aguirre-Rodriguez et al., 2012a; Hosany & Martin, 2012; Mazodier & Merunka, 2012; Rabbanee & Roy, 2015; Sirgy, Lee, Johar, & Tidwell, 2008). This body of research argues that an individual has a set of characteristics to depict him/herself (i.e., self-concept) and he or she is internally motivated to act in ways that reinforce the self-concept. The match between an individual's self-concept and the user image of a certain product is referred to brand–self congruity (Sirgy et al., 2008). The brand–self congruity drives consumption based on the function of symbolic purchase which addresses customers' needs for self-expression (Hosany & Martin, 2012). People buy products whose images are consistent with theirs to reinforce their perceptions of

actual-self (i.e., how I see myself) or ideal-self (i.e., how I would like to see myself) through purchasing. The brand–self congruity based consumption is prevalent in sport (Hang, 2002; Kwak & Kang, 2009). For instance, sport fans are more likely to buy and wear products (e.g., jerseys and hats) with their favorite teams' logo than non-sport fans because the image of the products are consistent with their self-concept as sport fans (Kwak & Kang, 2009). The application of brand-self congruity is also extended to the context of sport sponsorship (Papadimitriou, Kaplanidou, & Papacharalampous, 2016; Sirgy et al., 2008; Wallace, Buil, & de Chernatony, 2017). Building the spillover effect, Sirgy et al. (2008) found that fans of sport teams or events are more likely to choose brands that sponsored their teams or events than those that did not because of the image congruence established by sponsorship. By comparing the level of purchase intention between athletes, volunteers, spectators in a sport event, Papadimitriou et al. (2016) found a direct positive relationship between sport self-concept and purchase intention of event sponsors' product. Among the three groups of research subjects, athletes expressed the highest intention of purchasing the sponsors' products.

In the current context, Nike has promoted brand–self congruity from both brand and customer sides in the context of this study. From the brand's side, Nike has associated its image with running by actively promoting running in China, such as hosting and sponsoring various marathon events, providing training camps and plans before major marathon events, and promoting high-end functional running shoes. From the customers' side, the NRCSH has been designed to promote running among customers, especially those who did not run in the past. By encouraging and cultivating new runners, the NRCSH has changed its customers' sport self-concept by adding

running as a key element to their self-expression. To increase customers' image congruence with Nike, the NRCSH employees wear Nike's sportswear during training courses and provide concrete images that link runners with Nike's products.

Relatedly, previous research showed that people's association with a brand extension (e.g., NRCSH) would positively influence their perception and attitude to its parent brand (e.g., Nike). Building upon this research and the aforementioned discussion about Nike's efforts to promote brand–self congruity from both brand and customer sides, it is hypothesized:

*Hypothesis 3:* Customers' sport self-concept as runners enhances their perceived congruence with a sport brand that focuses on running (brand–self congruity).

#### Perceived Brand-Extension Fit Influencing Brand-Self Congruity

Previous research suggests a transmission effect of the brand extension on the relation between its customers and parent brand (e.g., Dwivedi, Merrilees, & Sweeney, 2010; Loken & John, 1993; Walsh & Ross, 2010; Williams, Rhenwrick, Agyemang, & Pantaleoni, 2015). The brand extension is a marketing strategy through which a company introduces a new product to the public by associating the product with a well-known brand (Aaker & Keller, 1992). The newly introduced product or brand is referred to as a brand extension, while the existing brand is called a parent brand. Researchers outlined a reciprocal effect of a brand extension on its parent brand (Bottomley & Holden, 2001; Dwivedi et al., 2010; Loken & John, 1993; Zimmer & Bhat, 2004). For example, Loken and John (1993) found that when customers encountered a new brand extension and perceived a high fit between the brand extension and its parent brand (hereafter *perceived brand–extension fit*), their association with the parent brand increased as well. In

particular, when customers' perceived brand-extension fit is high, the parent brand and its extension are closely associated. In turn, the close association enables information (e.g., good or bad experience) received from the extension to be easily transferred to customers' attitudes and impressions toward the parent brand (Loken & John, 1993). In the sports domain, professional sport teams commonly use the brand extension as a strategy to strengthen fans' team association (Kwak & Kang, 2009; Walsh & Ross, 2010; Williams et al., 2015). For example, Kwak and Kang (2009) found that sport fans were likely to buy team-licensed merchandise such as jerseys and caps because the team-licensed merchandise (brand extension) has a high fit with their favorite team (parent brand). Buying the licensed merchandise bolsters people's self-concept as sport fans, which enhances the perceived congruence between sport fans' self-concept and their favorite teams.

More relevant to the current study, when an extension is sport related, such as sport teams, the influence of perceived brand-extension fit is highly significant to customers' evaluation of the parent brand (Walsh, Chien, & Ross, 2012; Walsh & Ross, 2010). For example, Walsh et al. (2012) found that sport fans may have more positive attitudes to sport-related parent brands, such as sport manufacturers, because the unique attribute of sport enhances the connection between the fans and the parent brands. Hence, the perceived brand-extension fit serves as a key determinant to customers' brand-self congruity in the sport domain. In the current case, the NRC, as a running program, may also generate significant influence to its participants (or customers). If the customers perceive a fit between the NRC and Nike, their association with Nike will increase as well. Drawing from the research discussed, this study speculates:

*Hypothesis 4:* Customers' perceived high brand–extension fit enhances their brand-self congruity with the sport-related parent brand.

# Moderating Effect of the Perceived Brand-Extension Fit

Along with its direct association with brand-self congruity, customers' perceptions of brand-extension fit moderate the relationship between customers' selfconcept and brand-self congruity (Broniarczyk & Alba, 1994; Swaminathan, Fox, & Reddy, 2001). Based on three experiments, Swaminathan et al. (2001) identified that the perceived brand-extension fit moderates the relationship between customers' exposure to the brand extension and their evaluation of the parent brand. To be more specific, they found that a successful brand extension enhanced customers' association with its parent brand only when customers' perceived brand-extension fit was high. The increased preference to the parent brand did not occur in the condition of a low brand-extension fit (Swaminathan et al., 2001). Conversely, an unsuccessful brand extension could damage the equity of its parent brand. In a series of studies on sport-related brand extension, Walsh et al. (2012, 2015) found that when using sport teams as a brand extension, sport fans' associations with the parent brand varied by their perceived brand-extension fit. In particular, when sport fans perceived a high fit between their favorite team and its parent brand, they were likely to support the parent brand as well. In contrast, when fans perceived a low fit, their association with the parent brand would not increase even though they are loyal to the team. Similarly, by investigating female fans' experience of the National Football League (NFL) women's only fan club (a brand extension of high fit), Williams et al. (2015) found that female fans who belonged to this club were more

likely to associate themselves with the NFL and develop loyal behavioral intention toward the league than those who did not.

Drawing upon the discussion above, this study expects that for a sport brand extension which focuses on encouraging sport participation (e.g., NRC), if customers perceive the attributes of the extension are consistent with those of its parent brand (e.g., Nike), their beliefs about the brand extension would be transferred to the parent brand. In the current case, if customers believe that the NRC is an expert in running, their perceived high fit between the NRC and Nike may make them believe Nike as being an expert in running. This transmission strengthens customers' brand-self congruity with Nike. Therefore, it is hypothesized:

*Hypothesis 5:* Perceived brand–extension fit positively moderates the relationship between sport self-concept and brand-self congruity. Sport self-concept has a stronger positive association with brand-self congruity when customers perceive a higher brand–extension fit.

# **Consequences of Brand-Self Congruity**

Existing research on brand–self congruity demonstrated that the match between brand user image and customers' self-concept could result in various positive outcomes, including brand satisfaction, purchase motivation, and brand loyalty (e.g., Aaker & Joachimsthaler, 2000; Biscaia, Correia, Ross, Rosado, & Maroco, 2013; Hang, 2002; Li, Wang, & Yang, 2011). Specifically, if customers recognize a high congruence between their self-concept and a brand image, they are more likely to buy products of the specific brand and even become loyal customers (Aaker & Joachimsthaler, 2000; Hang, 2002). Research on sport marketing found that sport fans' team-self congruity has a positive

influence on their sport consumption, including attending sport games and purchasing team related products (Hang, 2002; Kwak & Kang, 2009; Turley & Shannon, 2000). Within participatory sport, Hang (2002) investigated the consumption of participatory sport products among 215 undergraduate students and found that the students' perception of brand–self congruity was a significant predictor for their intention of buying products for sport participation. Sport sponsorship research indicated that sponsors (i.e., private companies) can increase the brand–self congruity of sport fans by associating their brand with the fans' favorite sport teams. In turn, the enhanced brand–self congruity significantly increases the fans' purchase of the sponsors' products (Biscaia et al., 2013; Ko, Kim, Claussen, & Kim, 2008; Turley & Shannon, 2000). The collective evidence indicates the significance of brand–self congruity in stimulating sport consumption as well as mediating the association between sport self-concept as runner and purchase intention. Hence it can be proposed:

*Hypothesis 6:* If customers have a high level of congruence with a brand, they are likely to purchase products of the brand.

*Hypothesis 7:* Brand-self congruity positively mediates the relationship between sport self-concept as runner and purchase intention.

#### **Sport Participation Influencing Purchase Intention**

Previous research identified two major types of consumption: functional consumption and symbolic consumption (e.g., Hosany & Martin, 2012; Park et al., 1986; Reddy & Bhat, 1998; Smith & Colgate, 2007). With respect to the functional consumption, people would buy a given product because of its utilitarian attributes. In the current study, running participation is operationalized in two ways: frequency of running

(i.e., number of times customers run per week) and intensity of running (i.e., total mileage customers run per week). It is then posited that the level of running participation has a direct positive relationship with sport consumption (Casper et al., 2007; Lera-López & Rapún-Gárate, 2007; Wicker et al., 2010). In particular, constant sport participation would increase the level of sport performance, which in turn stimulates demands of sport products, such as participating in sport events, purchasing functional sportswear, and using specialized training services (Tong & Hawley, 2009; Wicker et al., 2010). In support of this perspective, Casper et al. (2007) found a positive relationship between frequency of sport participation and purchase of sport products. Similarly, based on an investigation of 21 sports, Wick et al. (2010) found that "the higher the weekly time of participation, the more money was spent on sport" (p.220). Collectively, it is proposed:

*Hypothesis* 8: Customers' level (i.e., intensity and frequency) of running participation is positively associated with their intention of buying running related products.

As predicted in Hypothesis 2, the more frequently an individual participates in running, the more likely he or she would form sport self-concept as runner. With respect to the symbolic purchase, people buy a given product because it expresses their perception of self (Liu & Xu, 2015; Sirgy et al., 2000; Smith & Colgate, 2007). Hence, running participation is proposed to have a positive indirect association with purchase intention through sport self-concept as runner and brand-self congruity. According to Cheung and Lau (2008), such indirect associations suggest a mediating effect. Thus, it is posited:

*Hypothesis 9:* Customers' level (i.e., intensity and frequency) of running participation has an indirect association with their purchase intention through the mediation of sport self-concept as runner and brand-self congruity.

# **Delimitations of the Study**

In this section, two delimitations will be discussed. Foremost, this study attempts to explore CSV implementation by examining the role of self-concept in mediating the relationship between sport participation and purchase intention. It should be noted that there are other variables, including brand knowledge (Geus, Langner, Esch, & Schmitt, 2006; Keller, 1993; Moutinho & Bian, 2011), brand attractiveness (Bhattacharya & Sen, 2003; Elbedweihy, Jayawardhena, Elsharnouby, & Elsharnouby, 2016; Hoyer & Brown, 1990), and consumer experiences (Brakus, Schmitt, & Zarantonello, 2009; Mollen & Wilson, 2010; Zarantonello & Schmitt, 2010), that could also have a significant impact on purchase intention within this process. Therefore, future studies should be conducted by including these variables to more comprehensively investigate how CSV affects consumer behavior.

Furthermore, this study has a limitation in the generalization of its results to other contexts because the proposed framework is developed based on a specific case of NRC in one city, and data will be collected using convenience sampling. Despite this limitation, the significance of the current study persists, as its purpose is to present an initial framework that demonstrates a potential way of CSV implementation in a sport setting. Nevertheless, to enhance the applicability of the theoretical model proposed in this study, further studies should be conducted in other contexts.

# **Definition of Key Terms**

Definitions of the constructs comprising the theoretical framework are listed in

Table 1.1.

**Table 1.1 Definition of Key Terms** 

Constructs	Definitions
Caring	The extent to which a customer perceives frontline employees make "a particular setting to be supportive, friendly, and respected" (Brown & Fry, 2014, p. 209).
Praising	Positive feedback about customer task-oriented behavior (Dweck, 2000).
Role modeling	A cognitive exemplar for an individual to emulate (Gibson, 2004)
Sport participation	Planned, structured, and repetitive performance of sport activities, with an intention to improve physical fitness (Caspersen, Powell, & Christenson, 1985).
Sport self-concept as runners	The extent to which an individual expresses him/herself with his/her running skills and performances.
Perceived brand- extension fit	Customers' perception of similarities between a brand extension and its parent brand (Dwivedi, Merrilees, & Sweeney, 2009).
Brand-self congruity	The cognitive match between brand user image and a consumer's self-concept (Sirgy & Su, 2000).
Purchase intention	Customers' preference to buy a certain product (Shao, Baker, & Wager, 2004).

#### **CHAPTER 2**

#### REVIEW OF LITERATURE

### **Creating Shared Value**

### The Conceptual Development of Creating Shared Value

The traditional business model focuses on short-term financial return and ignores pressing needs of customers, who are one of the most important stakeholder groups. By arguing the limitation of this model, Porter and Kramer (2006) presented a broader societal concept, creating shared value (CSV), as an alternative way for strategically integrating social goals into core business practices. According to Porter and Kramer (2011), the concept of CSV is defined as "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates" (p. 66). The core mechanism of CSV is to align social problems that have relevance to a company with its business operations. Companies can advance their competitiveness by solving those social problems simultaneously (Crane, Palazzo, Spence, & Matten, 2014), and thus transfer results of solving those social problems into a relatively tangible way, namely a business return. In order to achieve the purpose of shared value, Porter and Kramer (2011) articulated three ways of achieving CSV: (1) reconceiving products and markets, (2) redefining productivity in the value chain, and (3) enabling local cluster development.

According to Porter and Kramer (2011), receiving products and markets entails "rethinking the company's products in accordance with the needs of society" (p. 65). Reconceiving products and markets is to not simply rethink and redesign products in accordance to people's needs. Rather, it is an integrated strategy which includes

considerations of corporate capacity, market potential, and market dynamic. Among them, being aware of customers' changing needs and providing innovative products are the keys.

Redefining productivity in the value chain is to advance the economic, social, and environmental conditions in a company's supply chain (Porter & Kramer, 2011). A company's value chain is complex which contains various elements that influence its productivity, including material resources, human resources, working conditions and partnerships(Normann & Ramírez, 1993). Redefining productivity in the value chain highlights a transformation from evaluating productivity by quantity (e.g., the more one invests the more one produce) to evaluating productivity by quality (e.g., the more efficient one is the more one produce). For example, environmental pollution is not merely harmful to people's living condition but costly to business activities. A great part of the industrial pollution comes from wasted materials due to underutilization(Porter & van der Linde, 1995). The more materials are wasted the more resources a company has to invest in production. As a result, companies can create less additional social value for customers, communities and themselves(Pfitzer et al., 2013; Porter & Kramer, 2011).

Enabling local cluster development suggests a mutually beneficial relationship between companies and surrounding institutions, such as universities, companies and other associations(Porter & Kramer, 2011). The success of a company is related to markets it involves and surrounding infrastructures. Innovation, productivity, and development of a company largely depends on its clusters. For example, by investing in and helping the development of local universities, a company can acquire loyal employees with required working skills. If more people are hired, the local employment

rate would increase which may contribute to well-being and stimulate consumption in the markets. Therefore, shared value is created in ways that increasing people's well-being, and simultaneously increasing companies' productivity and expanding the markets (Porter & Kramer, 2011). Proponents of CSV encourage companies to consider CSV as a salient business model that redefines and guides the way of business-society relationship, and addresses corporate social responsibility more effectively (e.g., Høvring, 2017; Moon, Parc, Yim, & Park, 2011; Pfitzer et al., 2013; Rocchi & Ferrero, 2014).

Porter and Kramer's (2011) initial work was followed by research discussing theoretical and empirical boundaries of CSV (Dembek et al., 2016; Voltan, Hervieux, & Mills, 2014; Wójcik, 2016), as well as research mapping the constructs of shared value in organizations (Corazza et al., 2017; Maltz & Schein, 2012; Sarni & Orr, 2015). For example, Dembek et al. (2016) conducted a review of the CSV literature from six widely used academic databases of business and economics resources, such as Business Source Complete, Econlit, Emerald Journals, Jstore, Proquest, and Central Web of Science. In this review, Dembek et al. identified 73 articles that discuss the concept of CSV in business and management disciplines empirically and theoretically, and pointed out that existing publications focused on establishing the theoretical novelty of CSV as an innovative concept in these disciplines. Social problems involved in the CSV research include human resources development, environmental protection, health, and regional development (Dembek et al., 2016). A number of research has been conducted in the area of CSV since 2011, but most publications focused on arguing the theoretical novelty of CSV as an innovative concept in business and related disciplines, and there still lacks empirical research that investigate real implementations of CSV in reality (Dembek et al.,

2016). Although there is no clear criterion that is currently set to guide the implementation of CSV in business operation (Hiller, 2013), this limitation is understandable because CSV is a newly introduced concept in academia, and it takes time to transform an abstract terminology into real productivity.

As an exception, building upon 45 in-depth interviews with executives (who are responsible to their companies' sustainable development) in multiple industries, Maltz and Schein (2012) comprehensively investigated how those executives interpreted CSV from their understanding, and in what ways they implemented and optimized CSV in their companies. Maltz and Schein found that the integration of CSV to business operation was initiated based on the executives' willingness or beliefs to address social issues, and then was sustained and motivated by its capabilities to improve the companies' financial performance. The capabilities to improve the companies' financial performance is the determinant of CSV implementation, and can be evaluated with two perspectives, economic-first and mission-driven (Maltz & Schein, 2012). Companies with the economic-first perspective need to see short-term and tangible benefit to legitimize their CSV strategies, while those with the mission-driven perspective emphasize on the long-term value adds by fulfilling social needs. Additionally, major strategies those companies took for CSV implementation includes (1) research and development capabilities (or R&D capabilities), (2) supply-chain expertise, and (3) collaboration capabilities (Maltz & Schein, 2012). Of these, the R&D capabilities refers to innovative activities in developing products; the supply-chain expertise demonstrates promoting productivity in the value chain; and collaboration capabilities underlie the importance of value co-creation with local partners. These strategies are consistent with the three areas

of CSV implementation proposed by Porter and Kramer (Porter & Kramer, 2011). More importantly, the collaboration capabilities, such as partnering with local suppliers or competitors, serve as the ultimate purpose which would advance corporate sustainability in the long run (de los Reyes, Scholz, & Smith, 2017; Moon et al., 2011; Porter, 1998).

Furthermore, Tate and Bals (2016) conducted qualitative research with three companies implementing CSV in Haiti to depict some key components of shared value creation. In line with Maltz and Schein's (2012) findings of financial capability as a determinant of CSV implementation, Tate and Bals showed that addressing some social issues within business models would be more effective and sustainable than a social initiative, such as philanthropy and CSR. In particular, charging a fee for a product does not merely increase a company's revenue but also gives the product relevant value, and thus people would be more effectively use the product (Tate & Bals, 2016). In this way, a market for the certain product is established, which can benefit more people in the future.

In the view of CSV, the most important thing in establishing a market for shared value is to set an affordable price for those who are in need (Porter & Kramer, 2011; Tate & Bals, 2016). Tate and Bals (2016) found two constructs that address the capability of CSV implementation: mission-based approach and stakeholder management. For companies with the mission-based approach, their CSV strategies focus on complementing themselves in the long run (Maltz & Schein, 2012). In contrast, for companies with stakeholder management, their CSV strategies are concerned with increasing inputs and reducing costs by partnering with other organizations, such as nonprofit organizations, local communities and governments (Tate & Bals, 2016).

Notably, the stakeholder management stays in the center of the three cases illustrated by

Tate and Bals. All three companies highlight the importance of communicating with local stakeholders and understanding local environments. The stakeholder strategy broadly involves cooperation with all kinds of stakeholders who can contribute to and are involved in the CSV implementation, including financially-oriented (e.g., suppliers and retailers) and socially-oriented (e.g., universities and NGOs) stakeholders (Tate & Bals, 2016).

### **Creating Shared Value and Corporate Social Responsibility**

While the CSV proponents suggest that companies will make real strides on promoting social change when they treat solving social problems as a driver for productivity rather than a response to the public good (de los Reyes et al., 2017; Moon et al., 2011; Porter & Kramer, 2011; Sarni & Orr, 2015), some scholars in business ethics disagreed with the perspective that CSV is a novel concept that completely transcends Corporate Social Responsibility (CSR) (Aakhus & Bzdak, 2012; Beschorner, 2013; Crane, Palazzo, Spence, & Matten, 2014; Hartman & Werhane, 2013; Schramm, 2017). For example, Crane et al. (2014) questioned the legitimacy of CSV as an innovative corporate strategy with the following points. First, the core idea of creating social and economic outcomes simultaneously is not something new in the business domain. There has been some similar concept before CSV, especially strategic CSR, which refers to "any responsible activities that allow a firm to achieve sustainable competitive advantage, regardless of motive" (McWilliams & Siegel, 2011, p. 1492). Specifically, McWilliams and Siegel (2011) provided four rationales of strategic CSR: (1) aligning provision of public good to business activities, such as selling products, (2) balancing corporate economic, ethical, and social performance among various stakeholders, (3) evaluating

outcomes by value created, and (4) expecting financial return in the long run. Among these rationales, some overlaps between CSV and strategic CSR can be observed.

Second, Crane et al. (2014) indicated that the inherent tensions between pursuing financial return and being socially responsible which CSR suffers are also observed in CSV activities. Third, although CSV tries to propose a way for companies to transform solving social problems into business opportunities, its corporate-centric perspective may lead companies to be interested in the social problems which can benefit themselves, and thus does not contribute to the social change predicted by Porter and Kramer (2011).

Drawing upon these criticisms, Crane et al. (2014) concluded that rather than representing a completely new idea that drives companies to deal with deep-rooted social issues and promote social change actively, CSV may be another example in which "society and its needs are seen as something the firm can cater to successfully in economic terms" (p. 146).

As a response, Porter and Kramer (2014) demonstrated that the primary purpose of CSV is not merely solving social problems for external pressures or generate positive emotions, but also obtaining substantial financial returns that enhance a firm's own competiveness. Hence, CSV is introduced to solve the aforementioned tensions in CSR. In this regard, CSV is more strategic which emphasizes the importance of identifying the connections between social and economic progress, and generating new value for stakeholders, including customers, employees, and communities (Porter & Kramer, 2011; Spitzeck & Chapman, 2012). For instance, in order to fill in the gap of increasing demand in educational innovation, Intel's teachers' professional development programs not only help teachers improve their technical skills, but also make its own products and services

widely accepted in education (Pfitzer et al., 2013; Porter & Kramer, 2011). This Intel's example illustrates another difference between CSV and other social responsible approaches that falls on the notion that CSV encourages companies' active role in building a new market.

Another important difference between CSV and CSR is that CSR works under a rationale of value redistribution, while CSV works under a rationale of value creation. Proponents of CSV believe that CSR creates social value at the expense of companies' economic interests which is to transform some existing economic value into social value (Corazza, Scagnelli, & Mio, 2017; Goyal, Kapoor, & Esposito, 2012; Høvring, 2017). Hence, CSR does not increase the total volume of value created. Conversely, CSV creates social value by generating more value for the needs of companies and the stakeholders simultaneously (Wojcik, 2016). Although CSR is applicable and embraced when companies are in good economic conditions and generate sufficient revenue, it is unknown whether CSR activities can be maintained when companies are suffering from down turn (Corazza et al., 2017; Wojcik, 2016). However, CSV is believed to be less vulnerable toward economic condition because it is a strategy which aims to expand the total pool of value created. To some extent, CSV can be regarded as a specific strategic CSR, which focuses on the enhancement of core competitiveness rather than collateral competence (Michelini, 2012; Spitzeck & Chapman, 2012).

The third difference between CSV and CSR is that CSV emphasizes on sustainable development whereas CSR focuses on enhancing communities (Lee, Moon, Cho, Kang, & Jeong, 2014). In Lee et al.'s (2014) view, CSR is a non-marketing strategy which aims to acquire good public reputation and be a good citizenship in society through

responding external pressures, and thus is a morally oriented concept which may sacrifice business profit. To this end, CSR is reactive and relies more on the executives' willingness to address broad social issues, and hence is temporal and easy to be changed due to the executives' preferences (Lee et al., 2014). Since it is temporal, a company may set a CSR activity alone, such as donations, rather than cooperating with external communities and companies (Porter & Kramer, 2011). Contrarily, companies which adopt CSV are more active in seeking opportunities to advance both social and economic conditions because profitability is built upon how well the identified social needs are met. Hence, creating value for local communities contributes to not merely creating demands for companies' products but also enhancing productivity, such as human resources development (e.g., employees) and local partnerships (e.g., suppliers). According to CSV's proposition (Corner & Pavlovich, 2016; Font, Guix, & Bonilla-Priego, 2016; Lee et al., 2014; Moon et al., 2011), the ultimate goal of a CSV strategy is to enable development of clusters in the community where the company locates. In order to achieve the ultimate goal, the CSV strategy focuses on establishing deep and long-term relationships with external communities, buyers, employees and suppliers for mutual development (Lee et al., 2014; Porter & Kramer, 2011). Thus, more external and internal stakeholders are involved in the process of value creation. Lee et al. (2014) termed this situation as a "mutual firm foundation" (p. 475), in which each actor seeks needs from the others, and also contribute to the foundation's development. If all actors' needs can be fulfilled by the foundation, they will keep the collaboration (Lee et al., 2014).

# **Outcomes of Creating Shared Value**

The outcomes of shared value can be categorized into two types of benefits: social and economic value (Porter & Kramer, 2011; Schmitt & Renken, 2012; Shrivastava & Kennelly, 2013). Foremost, the premise of CSV is to fulfill unmet social needs for economic benefits, and thus the social and economic outcomes should be created simultaneously (Porter & Kramer, 2011). According to the literature on CSV, the economic outcome created in the process of shared value creation is quite straightforward which refers to direct revenue increase for companies, including promoting sales, expanding potential markets, and increasing productivity (e.g., Aakhus & Bzdak, 2012; Bertini & Gourville, 2012; Michelini & Fiorentino, 2012; Moon et al., 2011). The social outcome examined in the existing research include broader areas of human needs selected by companies, including employment, health living, and environmental protection (Brunso, Scholderer, & Grunert, 2004; Du et al., 2008; Pfitzer et al., 2013; Spitzeck & Chapman, 2012). Fulfilling the selected human needs are regarded as socially and economically beneficial since it is not only fundamentals of well-being but also factors for organizational behaviors (Dembek et al., 2016).

Evidence has been provided about how companies were benefited by investing resources in addressing those social issues. For instance, Microsoft helps community colleges by providing free updated software, cultivating instructors, and sending employee volunteers would raise educational level in those communities and increase possibilities for residents to find a job, and eventually reduce unemployment rate in the society (Moon et al., 2011; Porter & Kramer, 2006). In return, Microsoft can not only establish a good public reputation among the communities, but also more importantly

have sufficient sources of employees in information technology which would reduce its cost in human resources and improve the productivity in its value chain (Moon et al., 2011). Similarly, if sport organizations, including professional teams and sport manufactures, can take actions to encourage people's sport participation, it will not only benefit those people and the society, such as improving physical and mental health (Downward & Rasciute, 2011), and leading a healthy lifestyle with sport (González-Gross & Meléndez, 2013), but it will also create significant economic benefit for the sport organizations, such as driving sales of sport goods and services (Casper et al., 2007). However, previous research investigating presumed CSV outcomes mainly examined the outcomes of improving corporate financial performance, and it did not explicitly test the social outcome (Høvring, 2017), such as the actual social changes made by CSV efforts and people's perception to those CSV efforts. This is somewhat surprising given that the premise of CSV explained by Porter and Kramer (Porter & Kramer, 2011) is to associate corporate core business with customers' pressing needs.

The first research that provided explicit empirical evidence of shared value creation from both social and economic conditions was conducted by Du et al. (2008). Although Du et al.'s research was published prior to Porter and Kramer's official paper of CSV, the primary idea of creating value to benefit both society and companies existed in an earlier paper of Porter and Kramer's (Porter & Kramer, 2011), which influenced the research of Du et al.'s. Their research focused on a Crest's oral health program, which provided children from economically disadvantaged Hispanics communities with oral health education and dental care tools and services. The oral health program meets the criteria of CSV proposed by Porter and Kramer (2011) in the following three ways.

Foremost, oral diseases are serious among children of minorities in disadvantaged communities (Lewit & Kerrebrock, 1998), and thus caring these children's oral health is a critical social problem that needs to be solved. Crest, as a global leading brand in oral hygiene, has relevance to the issue of oral diseases and has the capacity to address the problem. Moreover, Crest can increase its brand awareness and consumer loyalty among families who received benefits from the oral health program. The results of Du et al.'s (2008) study showed that children's participation in the oral health program enhanced their beliefs of oral health and increased their frequencies of oral health behavior, such as tooth brushing. Simultaneously, parents' perception of the positive impact of the program on their children's oral health increased their view of Crest as a trustworthy brand in oral hygiene (Du et al., 2008). Together, the increased frequency of oral health behavior and brand credibility would drive the families' purchase intention of Crest's products.

More recently, there are a number of studies that examined the outcomes of CSV through redefining productivity in a company's value chain (Campos-Climent & Sanchis-Palacio, 2017; Kottke, Pronk, Zinkel, & Isham, 2017; Pronk, Lagerstrom, & Haws, 2015). For example, in line with Porter and Kramer's CSV implementations, Pronk et al., (2015) conducted a case study to investigate how a workplace health program would improve employees' productivity, with a particular focus on the effect of improving employees' health well-being on their shared value creation. The results of this case study indicated that, through investing in the workplace health program, five impacts were generated: (1) increasing employees' commitment to the company, (2) enhancing employees' sense of belonging, (3) increasing employees' willingness to participate in philanthropy, (4) saving costs in employees' health care, and (5) improving the

company's overall financial performance. Among the five impacts, the first three are regarded as social value, and the last two are economic value (Kottke et al., 2017; Pronk et al., 2015). In another example, Campos-Climent and Sanchis-Palacio (2017) empirically measured social and economic outcomes by examining the effects that companies' strategies of applying a knowledge absorptive capacity have on shared value creation. Specifically, the knowledge absorptive capacity is defined as companies' capacity to acquire, assimilate, transform and exploit external knowledge for its productivity (Campos-Climent & Sanchis-Palacio, 2017). Based on surveys with 128 companies in Spanish and French, Campos-Climent and Sanchis-Palacio (2017) found that the knowledge absorptive capacity is an effective mediator in explaining the relationship between organizational strategy and shared value creation, such as employees' well-being and customer satisfaction.

# **Creating Shared Value in Sport**

In the sport industry, being socially responsible is important for companies to strengthen their competitiveness and sustainability, especially for professional sport clubs that receive great media attention (Babiak & Wolfe, 2009; Walker & Kent, 2009). By highlighting their contributions in solving social problems, the professional sport clubs can satisfy and maintain their supporters in communities where they locate (Babiak & Wolfe, 2009; Heinze et al., 2014). The sport management literature has explicitly examined the effect of CSR (e.g., Babiak & Wolfe, 2009; Bradish & Cronin, 2009; Inoue, Funk, & McDonald, 2017; Walker & Kent, 2009) and other socially responsible initiatives, such as cause-related marketing (Irwin, Lachowetz, Comwell, & Clark, 2003; Pharr & Lough, 2012) and philanthropy (Inoue, Mahan, & Kent, 2013; Kim & Walker,

2013) on sports organizations and athletes; however, there lacks an attention to the effect of CSV, despite the fact that the sport industry can be an ideal context for the CSV implementation.

As an exception, building upon past experiences of designing and evaluating corporate social programs, Walker and Hills (2017) demonstrated that the capability to create economic value from operating social programs is a critical driver for professional sport organizations to sustain their engagement and investment in the social programs. More specifically, to support the implementation of CSV in sport, Walker and Hills examined the effectiveness of NFL's "Play 60" in London, a social program at the beginning stage of integrating shared value. The evaluation was based on a ten-week trial. During this period, six NFL teams cooperated with six elementary schools to encourage children to play flag football for 60 minutes per day, which aims to reduce childhood obesity and spread American football among the children and their parents. The evaluation was assessed using a pre-posttest protocol to both treatment and control groups, which examined changes in children's preference to American football and frequency of sport participation before and after the trial. Results of this investigation showed a significant increase in enjoyment and engagement in playing American football among children in the treatment group. Furthermore, increased affinity of American football and NFL teams were observed during and after the trial. It is the positive social and economic outcomes, though only evaluated in the short-term, that reinforced NFL's decision to expand the "Play 60" in London. Therefore, "working to ensure the program is successful, sustainable, and meets societal needs, while at the same time benefitting the organization, are the key goals for design and deployment of any social program" (Matt Walker & Hills, 2017), which follows the key rationale of CSV.

Besides the aforementioned empirical research, sport organizations are trying various ways to implement CSV in their business operation. For instance, Major League Baseball (MLB)'s Reviving Baseball in Inner Cities (RBI) can be regarded as an attempt of embracing CSV strategy which focuses on development of local clusters. In order to deal with decline in baseball participation in inner city areas, MLB funded RBI which provides free baseball training to youth from 13-18 years old in inner cities, and actively engaged in this program by providing coaches, facilities, equipment, and scheduling competitions (Kihl & Tainsky, 2013). By operating RBI, MLB can not only encourage youth sport participation and expand their social networks, but also cultivate baseball fans and players among next generations, which contributes to its sustainable development. A similar attempt of enhancing the local clusters was observed in Detroit Lions' Living for the City program (Heinze et al., 2014). Therefore, adopting CSV in sport can be an innovative strategy which facilitates sport clubs' active involvement in solving social problems by ensuring their financial returns.

Another example comes from Nike's promotion of running footwear in China. In 2011, Nike changed its target market from basketball to running in China. In order to support this change, Nike sponsored Shanghai International Marathon Games to increase its awareness among runners. Given the reality that marathon was not popular among Chinese people, NRC, which provides free marathon training courses, was launched to attract runners in 2014. NRC is innovative because it cultivates potential customers of running shoes by attracting running participants and increasing their brand awareness of

Nike during training. Simultaneously, NRC contributes to public health by encouraging more people to run (NRC, n.d.). Physical inactivity has been a social issue in China. According to the General Administration of Sport of China's (2014) report, more than 60% of Chinese citizens are physically inactive in 2013. Following Porter and Kramer's (2011) argument, the population of physical inactivity are potential market which was underserved. NRC well grasped this underserved market by cultivating people's running habit which lead to shared value creation. For those NRC participants, their knowledge of the importance and benefit of sport participation to health might be increased. In turn, the increased knowledge may motivate their sustainable sport participation, which further will increase their purchase of sportswear and services (Wick et al., 2010). As a result, the creation of shared value, both economic value (e.g., increased sport consumption) and social value (e.g., increased health literacy and behavior), is achieved.

# **Summary**

CSV is defined as "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates" (Porter & Kramer, 2011, p. 66). CSV distinguishes from CSR in three ways. First, CSV is closely linked with business activities, while CSR is mostly separated from business activities (Porter & Kramer, 2011; Wojcik, 2016). Second, CSV is implemented through incorporating select social issues that have connections to companies' core business, while CSR is implemented by responding to social pressures that are not necessary to be related to companies' core business (Porter & Kramer, 2011; Wojcik, 2016). Finally, CSV practices should generate both social and economic benefits simultaneously, while generating economic benefit is

not the main purpose for CSR practice (Porter & Kramer, 2011; Schmitt & Renken, 2012; Wojcik, 2016). Although CSV has not yet been fully investigated in sport settings, some evidence from sport organizations seems to support the potential of these organizations to successfully implement CSV because of the effect of sport on health and consumption (Salcines, Grady, & Downs, 2014; Wick et al., 2010). Therefore, taking the advantage of the unique connection between encouraging sport participation and enhancing health and stimulating sport consumption may be a potential balance point for sport companies' CSV implementation.

### **Sport Participation**

### **Definition of Sport Participation**

In the current study, sport participation is defined as leisure sport activities which is "planned, structured, and repetitive" and has as a final objective of improving physical fitness (Caspersen, Powell, & Christenson, 1985, p. 126). Substantive research supports a positive effect of sport participation on health and economic outcomes (Bailey, Hillman, Arent, & Petitpas, 2013; Casper et al., 2007; Conn, Hafdahl, & Mehr, 2011; Li & Siegrist, 2012; Poitras et al., 2016; Wicker et al., 2010) For example, according to several meta-analyses (Conn et al., 2011; Li & Siegrist, 2012; Poitras et al., 2016), keeping a regular sport participation rate is effective to prevent chronic diseases, obesity, and mortality. In addition, Warburton, Nicol, and Bredin (2006) reported that regular sport participation with a weekly calorie expending of 2,000 kcal would "increase in life expectancy of 1 to 2 years by the age of 80" (p. 805). Collectively, sport participation play an important role in improving people's physical health. For the effect of sport participation on economic outcomes, extant research demonstrates the frequency and

intensity of sport participation has a positive effect on the consumption of sport products, such as sportswear, facilities, and services (Casper et al., 2007; Lera-López & Rapún-Gárate, 2007; Wicker et al., 2010). For instance, Wick et al. (2010) indicated that a person's high level of sport performance would influence his or her preference to purchase highly functional sportswear, which is more expensive than sportswear without athletic functions. Thus, sport participation plays an important role in driving people's sport consumption.

### Physical Inactivity as a Global Health Issue

Regardless of various health benefits one can acquire from sport participation, many adults (who are 18 years or older) fail to participate in sufficient sport activities to meet the minimum recommendations for moderate and vigorous physical activity (U.S. Department of Health and Human Service, 2017), and thus are regarded as physical inactive. Physical inactivity refers to one's state of failing to participate in sport at least 30 minutes of moderate-intensity or at least 20 minutes of vigorous-intensity for three days per week (Haskell et al., 2007). Physical inactivity would increase the morbidity of chronic illnesses, such as cardiovascular disease, cancers, and diabetes, which influence people's physical health (Bize, Johnson, & Plotnikoff, 2007; Blair & Morris, 2009). Although compelling evidence indicates that regular sport participation that meets the recommended minimal requirements would be highly beneficial for health and wellbeing, most people are physically inactive (Teixeira et al., 2012). According to Europe Sport and Health (2014), 59% of European citizens never participated in any type of sport in 2013. The Centers for Disease Control and Prevention (2014) reported that 50.1% of the United States citizens did not meet the recommended level sport participation in

2013. Worse still, the rates of sport participation in developing countries, such as China and India, are, on average, lower than those of developed countries because people in developing countries are more likely to sacrifice their time to improve social and economic status (Kohl et al., 2012). For example, the General Administration of Sport of China (2014) reported that only 33.9% of Chinese citizens frequently participated in sport in 2013, and this percentage included those who participated in sport but did meet the minimal recommendations. Collectively, prevalence of insufficient sport participation is a global health issue that is necessary to be solved.

### **Self-Determination Approaches to Sport Participation**

Existing literature provides substantial theories in explaining determinants of sport participation. In this section, I specifically describe one prevalent theory that provides frameworks for investigating the motivational determinants of sport participation, SDT (Edmunds, Ntoumanis, & Duda, 2008; Friederichs, Bolman, Oenema, & Lechner, 2015; Niven & Markland, 2016; Teixeira et al., 2012). The following discussions provide an overview of SDT and its key constructs, and empirical evidence to show its practical application in sport.

SDT was developed to explain a relationship between specific motivation and intended behavior change (Deci & Ryan, 1985; Ryan & Deci, 2000; Ryan, Patrick, Deci, & Williams, 2008). In particular, SDT postulates that people are more likely to act and maintain their behavior if their behavior is motivated by some internal reasons (Ryan & Deci, 2000). Hence, whether people are motivated to participate in sport depends on the extent to which their basic psychological needs are satisfied. Further, different conditions of need satisfaction determine how people are motivated (Deci & Ryan, 1985, 2000). In

this regard, SDT depicts a continuum which depicts different types of motivation on the basis of level of perceived autonomy, including amotivation (not motivated), extrinsic motivation (e.g., rewards, praise, punishment), and intrinsic motivation (e.g., pleasure, enjoyment, personal values) (Ryan & Deci, 2000).

**Basic psychological needs.** Satisfying basic psychological needs is a critical part of SDT, and is woven throughout the development of SDT on behavior change (Ryan & Deci, 2000; La Guardia, Ryan, Couchman, & Deci, 2000; Ryan et al., 2008). The basic psychological needs, from the perspective of SDT, can motivate force or "nutriments that are essential to psychological growth, integrity, and well-being" (La Guardia et al., 2000). Building upon this initial definition, the basic psychological needs are conceptualized with three components: autonomy, competence, and relatedness (Ryan et al., 2009). Among them, autonomy is the core element of SDT, and refers to "the perception of being the origin of one's own behavior and experiencing volition in action" (Ng et al., 2012, p. 326). Practices for behavior change should focus on internalizing people's motivation to engage in health-conducive behaviors. Competence indicates one's feelings of being able to perform volitional actions for expected outcomes (Deci & Ryan, 2004; Ng et al., 2012). According to Ryan et al. (2008), competency builds on volition and autonomy. Specifically, when people feel that their abilities are developing as they expected, then they will continue to strive for competency. Relatedness is defined as "feelings of being respected, understood, and cared for by others" (Ng et al., 2012). In the context of encouraging sport participation, relatedness represents the relationship between trainers and trainees. In particular, trainers must let their trainees perceive a

sense of respect, caring and understanding to facilitate the trainees' openness to instructions and willingness to incorporating the instructions into practice.

Individuals' perceptions of autonomy and competence are critical to their intrinsic motivation and persistence of behaviors for well-being (Ryan & Deci, 2000). People's perception of relatedness plays as a facilitator for behavior change. In particular, people are more likely to identify and adopt certain values, and perform relevant behaviors promoted by those to whom they feel connected (Ryan et al., 2008). Therefore, it comes to one fundamental assumption of SDT that people interact with their environment to seek opportunities for the fulfillment of the basic psychological needs, which results in increased feelings of self-endorsement and well-being (Deci & Ryan, 2004). In contrast, if any of the needs, especially autonomy and competence, are thwarted, ill-being will be ensued.

Motivation. Motivation can be broadly defined as directions and intensities for people to "initiate, terminate, or persist in specific actions in particular circumstances" (Markus & Kitayama, 1991). Depending on what people expect for by participating in an activity, motivation, from the perspective of SDT, is broadly categorized into intrinsic motivation, extrinsic motivation, and amotivation (Deci & Ryan, 1985; Ryan & Connell, 1989). Intrinsic motivation arises when the activity is inherently enjoyable and congruent with personal values (Bardi & Schwartz, 2003; Deci & Ryan, 2004). Thus, intrinsically motivated behavior can generally lead to needs satisfaction, positive outcome, and persistence of certain behavior (Bardi & Schwartz, 2003; Vallerand & Reid, 1984). Amotivation refers to an absence of motivation (Ryan, Deci, & Grolnick, 1995).

and subsequent outcome, or value of the outcome. Hence, they will either not participate in the activity or participate in without any intention (Ntoumanis, Pensgaard, Martin, & Pipe, 2004; Vallerand & Blssonnette, 1992). Participation based on amotivation might result in negative outcomes, such as feelings of frustration, loss of self-regulation, and illbeing (Legault, Demers, & Pelletier, 2006; Standage, Duda, & Ntoumanis, 2003; Wilson, Mack, & Grattan, 2008). Extrinsic motivation describes behaviors that an individual act for separable outcomes, such as attaining reward or avoiding punishment, rather than for inherent satisfaction and enjoyment of the actions (La Guardia et al., 2000). According to SDT, external motivation is effective in stimulating changes of behaviors, but its weaknesses relate to the persistence of certain behavior in the long run. If external stimulus, such as reward, punishment, and promotion, for performing the behavior is removed from activities, people may no longer participate in such activities.

Extrinsic motivation consists of four types of motivation in terms of the level of autonomy, including external regulation, introjected regulation, identified regulation, and integrated regulation (Koestner, Ryan, Bernieri, & Holt, 1984; Ryan & Connell, 1989; Ryan et al., 2009). Integrated regulation represents the most autonomous type of extrinsic motivation. It occurs when people realize the benefits and needs of participating in an activity, and their choices of participation are completely self-endorsed and congruent with personal values (Deci & Ryan, 2000; Vansteenkiste, Niemiec, & Soenens, 2010). According to the definition, integrated regulation is highly similar with intrinsic motivation. Identified regulation represents a less autonomous type of extrinsic motivation than integrated regulation. It occurs when a person identifies benefits that are brought by activity participation, which is motivated by the identified benefits rather than

personal values (Deci & Ryan, 2004). The third type of extrinsic motivation is introjected regulation. People who act for attaining self-esteem or avoiding guilt, regardless of whether the actions are worthwhile or congruent with personal values, would display introjected regulation (Ryan et al., 1995; Vansteenkiste et al., 2010). Although the purpose of introjected regulation is somewhat intrinsic (e.g., self-esteem), it is regarded as a controlled form of extrinsic motivation since the original causes of actions are feelings of external pressure. Thus, people are relatively forced to conduct such actions rather than self-endorsed. The last one is external regulation, which is the least autonomous type of extrinsic motivation (Bryan & Solmon, 2007). External regulation proceeds when a person acts for external demands, such as obtaining reward or avoiding punishment, and people have no choice but behave to comply with external requirements (Vansteenkiste et al., 2010).

The four types of extrinsic motivation are grouped as autonomous self-regulation and controlled regulation (Ng et al., 2012). Specifically, integrated regulation and identified regulation are categorized as autonomous self-regulation, and intrinsic motivation also belongs to this category. In contrast, controlled regulation encompasses introjected regulation and external regulation (Ryan & Deci, 2000). In accordance to the categorization, behaviors under autonomous regulation are more self-endorsed, and thus usually result in positive, long-lasting outcomes, such as optimism, healthy diet, exercises, and well-being (e.g., Edmunds, Ntoumanis, & Duda, 2007; Gunnell, Crocker, Mack, Wilson, & Zumbo, 2014; Kinnafick, Thøgersen-Ntoumani, & Duda, 2014; Sparks, Dimmock, Lonsdale, & Jackson, 2016). For example, Kinnafick et al. (2014) found that when people's exercise behaviors were autonomously motivated, they were more likely

to continue exercising. Kinnafick et al.'s research also proposed the effectiveness of applying controlled regulation to facilitate people's participation at the adoption stage because the health benefit of exercising cannot work shortly. Similarly, Gunnell et al.'s (2014) and Sparks et al.'s (2016) findings support the role of autonomous regulation as a key component in facilitating sport participation and increasing well-being. Conversely, controlled regulation is proposed to be effective to promote behavior change, but it may cause maladaptive outcomes such as utilitarianism, deception, selfish, and misidentification, which are detrimental to overall well-being (Deci & Ryan, 2004; Knee & Zuckerman, 1998). Recent studies, however, found the negative relationship between controlled regulation is not as significant as supposed (Barkoukis et al., 2011; Gillet et al., 2014; Langan et al., 2016). For instance, Barkoukis et al. (2011) investigated the relationship between motivation types and doping usage among Greek athletes, and found that the athletes under the guidance of controlled regulation (i.e., attaining rewards or avoiding punishment) had the highest rate of doping usage because they highly focused on external incentives or pressures. However, these athletes would then abandon the prohibited substance when they found that doping usage was ineffective. Based on two independent studies, Langan et al. (2015) found that people can achieve their stated goals under controlled regulation, and goal attainment positively related to increased wellbeing. Thus, controlled regulation has a positive indirect connection with well-being even though the connection is weak.

### Previous Research on Self-Determination Theory in Sport

Building upon SDT, a number of empirical studies in sport have been conducted, supporting SDT as a meaningful framework in understanding the relationship between

motivation and sport participation (e.g., Clancy, Herring, MacIntyre, & Campbell, 2016; Edmunds et al., 2007; Hagger & Chatzisarantis, 2007; Teixeira et al., 2012). For example, Teixeira et al. (2012) reviewed the literature on sport participation using SDT since the theory was introduced to the sport field, and found 66 empirical peer-reviewed articles that investigated at least one construct of SDT in explaining adults' sport participation. Their review showed that SDT has been successfully applied to various contexts relating to sport and exercise, such as weight control, clinical treatment, leisure-time sport, and physical education. More recently, Clancy et al.'s (2016) review of sport motivation research found that SDT is the dominant theory among scholars.

Moreover, rooting on SDT, a number of scale were developed to further the application of SDT in sport, such as the Sport Motivation Scale (Pelletier et al., 1995; 2013), the Basic Needs Satisfaction in Sport Scale (Ng, Lonsdale, & Hodge, 2011), and the Physical Activity and Leisure Motivation Scale (Molanorouzi, Khoo, & Morris, 2014; Zach, Bar-Eli, Morris, & Moore, 2012). For instance, Zach et al. (2012) developed a multi-dimensional measurement to examine motivations for leisure time sport participation, namely the Physical Activity and Leisure Motivation Scale (PALMS). Building upon previous qualitative research, Zach et al. conceptualized PALMS with eight components: (1) mastery, (2) physical condition, (3) affiliation, (4) psychological condition, (5) appearance, (6) others' expectations, (7) enjoyment, and (8) competition/ego. These eight dimensions then were grouped into two dimensions: intrinsic motivation (mastery, psychological condition, and enjoyment) and extrinsic motivation (physical condition, affiliation, appearance, others' expectation, and competition/ego). Then, the proposed eight components were confirmed by the data of

678 Iranian people with regular rate of sport participation, which demonstrates the PALMS as a more comprehensive measure of motivations in sport participation. Later, the validation of PALMS was examined in multiple countries with different cultural background, such as China, Greece, Japan, and Malaysia (Chen & Tsuchiya, 2016; Filippos, Stella, & Mavridis, 2016; Molanorouzi et al., 2014).

### Summary

Sport participation is a behavior that is "planned, structured, and repetitive" (Caspersen et al., 1985, p. 126) and is performed with a final objective of improving physical fitness. Research has assessed sport participation for health outcomes, using two types of measure: frequency and intensity (Haskell et al., 2007). Drawing on a review of SDT, sport participation can be motivated intrinsically and extrinsically. To be specific, there are three types of motivation associated with human behavior: intrinsic motivation, extrinsic motivation, and amotivation. Among these, intrinsic motivation includes people's attitude toward and confidence of sport participation, and people are more likely to sustain participation because participating in sport is their own choice. In contrast, extrinsic motivation entail rewards, punishment, environmental conditions, and social norms, and people's participation is controlled by those external factors and is not selfdetermined. Persistence is low for extrinsically motivated participation. Amotivation represents the condition that people are not motivated to act. The level of motivation depends on the degree of satisfying three psychological needs: autonomy, competence, and relatedness. If all three needs are satisfied, people will feel great freedom of behavior and thus are intrinsically motivated. If none of the three needs are fulfilled, they will be amotivated. Furthermore, extrinsic motivation (e.g., rewards, praise, and approval) is

effective in stimulating new behavior, but it is likely to cause some negative outcomes, such as maladaptive behaviors and ill-being through the process of participation. Thus, in order to help people sustain regular sport participation, it is important to investigate how their extrinsic motivation toward sport can be gradually internalized during their participation.

### **Self-concept**

Self-concept is made up by individuals' total sum of thoughts, feelings, and uniqueness concerning themselves (Sirgy, 1986). Self-concept can also be defined as the cognitive and affective understanding of who and what we are that is formed through experience with and interpretations of the environment in terms of both the actual and the ideal self (Malär, Krohmer, Hoyer, & Nyffenegger, 2011). Values are proposed to be central to a person's formation of self, but this relationship is rarely studied (Gecas, 2000; Rohan, 2000; Verplanken & Holland, 2002). Rooted from identity theory, Gecas (2000) proposed self-concept as a mediator between values and behavior decision in that "individuals conceive of themselves in terms of the values they hold" (p. 96). For example, the behavior of helping disadvantaged groups, such as donations, can be seen as reflection of the values of benevolence (Bardi & Schwartz, 2003). According to Gecas (2000), it is not the values of benevolence that directly lead to the behavior of donating; rather the self-concept of being a "good person" (as a reflection of benevolence) induces the behavior and mediates the link between values and behavior.

Literature has identified four types of the self-concept construct: actual self, ideal self, social self, and ideal social self (Hosany & Martin, 2012; Rabbanee & Roy, 2015; Sirgy, 1982). According to Sirgy (1982), actual self relates to who a person thinks he or

she actually is. Actual self is a realistic appraisal of the qualities present in ourselves. Ideal-self entails a desired self a person wishes to become. Social self refers to "image that one believes others hold" (Sirgy, 1982, p. 288), whereas ideal social self represents a desired self-image that a person would like others to hold. Of these four types of self-concept, previous studies on consumer behavior mainly operationalized self-concept based on actual- and ideal-self (Hang, 2002; Hosany & Martin, 2012; Kwak & Kang, 2009), and comprehensively identified the effect of self-concept on purchase intention (Aaker, 1999; Liu et al., 2012; Rabbanee & Roy, 2015). Most self-concept research on consumer behavior relies on the match between consumer self-concept and a product or brand image to explain consumer motivations for purchasing products (Aguirre-Rodriguez, Bosnjak, & Sirgy, 2012; Hosany & Martin, 2012; Sirgy et al., 2008).

This research proposes that people buy products not merely for functional utilization, but also for symbolic meanings to express their values, beliefs, and personal attributes (Sirgy, 1982). More specifically, as consumers use products, they engage in behaviors to help construct the self, express the self, and communicate meaning to others. To augment the ideal self, consumers may also use luxury brands in enhancing their self-worth (Liu et al., 2012; Roy & Rabbanee, 2015). The symbolic meaning attached to objects helps consumers create and enhance the expression of self (Aaker, 1999). At the same time, consumers end up seeking similarities between their selves and the characteristics of brands they become attracted to (Aaker, 1999; Sirgy, 1986). The continual usage of a brand by customers tends to develop an emotional relationship between the brand and the customers, which leads to brand loyalty and repetitive brand purchase. According to Sirgy's (1986) theory of self-concept, customers' repetitive

purchase and loyalty meet their expectation of self-concept. For example, when an individual sees him/herself as rich and distinguishable from others, he or she would choose luxury brands, such as Louie Vuitton or Burberry, which meet their self-concept (Liu et al., 2012). Overall, the self-concept plays an important role in predicting customers' intention of consumption.

### **Sport Self-Concept**

Sport self-concept, or physical self-concept (these two terms were interchangeably used in some studies), is defined as attitudes and beliefs that an individual possesses with regard to his or her own sport skills and performance (Marsh, Papaioannou, & Theodorakis, 2006). Based on the multidimensional self-concept theory, Marsh, Byrne, and Yeung (1999) have developed a self-report instrument that assesses dimensions of sport self-concept among athletes. Specifically, the sport self-concept would be predicted to relate more closely to optimal sport experiences than a generalized recognition of self. Sport self-concept is expected to be positively related to positive associations that have been found between perceived ability and performance(Alfermann & Stoll, 2000; Chanal, Marsh, Sarrazin, & Bois, 2005). For example, by conducting an experiment between two female age groups, Alfermann and Stoll (2000) found that durable participation and achievement in sport or fitness would enhance individual's sport self-concept, which then lead to future engagement.

Sport psychology literature posits the sport self-concept as an effective predictor for the attainment of some positive outcomes such as advanced sport participation and performance, physical and mental health, social cohesion (Donaldson & Ronan, 2006; Marsh et al., 2007; Slutzky & Simpkins, 2009). The key rationale for sport self-concept

as an intrinsic motivation is that people who perceive themselves positively in relation to their sport skills and performance are more likely to achieve self-esteem and feel competence though sport than those who do not. In order to keep attaining the positive feelings, these people will continue devoting efforts to sport participation (Marsh et al., 2006). Because of the salience of sport self-concept in promoting sport participation and achieving positive outcomes, attention has been paid to identify ways to increase people's sport self-concept.

Marsh et al. (1999) found a reciprocal effect between sport participation and sport self-concept, where sport participation and sport self-concept are both determinant and consequence for each other. To be specific, an individual's prior sport self-concept determines his or her involvement in sport and subsequent achievement; the achievement then update the individual's sport self-concept. Following Marsh et al.'s initial finding, a number of research provided empirical evidence to support the reciprocal model (Coatsworth & Conroy, 2009; Conroy & Coatsworth, 2007; Marsh et al., 2007). For example, in a ten-week experiment of sport self-concept and sport performance in gymnastics, Marsh et al. (2007) found that athletes' initial self-concept in gymnastics determined their level of participation which influenced their gymnastic performance. As a result, the higher gymnastic performance enhanced the athletes' self-concept in gymnastics, which then predicted their future intentions. Building on the reciprocal effect, it is believed that people's sport self-concept can be reinforced by facilitating their sport participation.

## The Effect of Sport Participation on Sport Self-concept

The literature demonstrates a positive relationship between sport participation and sport self-concept (e.g., Biddle & Asare, 2011; Coatsworth & Conroy, 2009; Liu, Wu, & Ming, 2015; Perrier, Sweet, Strachan, & Latimer-Cheung, 2012; Spruit, Assink, van Vugt, van der Put, & Stams, 2016). In particular, several meta-analyses found that achievements in improving athletic skills, enjoying sport experiences, and winning games strengthen one's competence, satisfaction, and attachment in sport. Based on two experiments among adults, Alfermann and Stoll (2000; 2002) showed that those who consistently participated in fitness program for at least 14 weeks reported a stronger sport self-concept than those in control groups during the same period. In particular, they found that both constant participation and advanced performance (i.e., increased intensity) significantly influenced people's sport self-concept. Based on a longitudinal study among adolescents, Slutzky and Simpkins (2009) found that time spent on sport participation is positively associated with one's sport self-concept. The construct of sport self-concept, therefore, represents fairly stable perceptions of the self within the sport domain. More importantly, a stream of research demonstrates that intrinsically motivated sport participation (or performance) has stronger impact on one's sport self-concept than extrinsically motivated participation (Georgiadis, Biddle, & Chatzisarantis, 2001; Martín-Albo, Núñez, Domínguez, León, & Tomás, 2012; Thøgersen-Ntoumani & Ntoumanis, 2006; Wilson & Rodgers, 2002). For example, Based on findings of a longitudinal study with four different types of sport, Martín-Albo et al. (2012) found that the enhancement of the participants' sport self-concept was influenced by the types of motivation, and the types of sport has no relationship with the change of sport self-concept. Specifically,

people whose performance is self-determined (or more intrinsically motivated), report a higher level of sport self-concept than those who are not intrinsically motivated. Martín-Albo et al.'s findings are consistent with Georgiadis et al. (2001) and Wilson and Rodgers (2002) who argue that more intrinsically motivated sport participation (or performance) significantly influence people's enhancement of sport self-concept.

### **Brand-Self Congruity**

According to Aaker (1999) and Sirgy (1982, 1985), people buy products or brands that address expectations of themselves. Specifically, Sirgy (1982, 1985) argued that consumers make decisions to purchase certain products or brands as results of pursuing the congruence between their actual- and ideal-self. To this end, purchasing products would be regarded as a kind of behavior that is expected to meet one's definition of actual- or ideal-self. A fit between the outcome of purchase (e.g., buying and wearing Nike's running shoes) and the self-concept of a customer (e.g., a runner or marathon runner) is termed as brand-self congruity.

The brand-self congruity presents a process of "cognitive matching" between the user image of a given product and the consumer's self-concept (Hosany & Martin, 2012; Sirgy et al., 2008). The marketing literature demonstrates the brand-self congruity as a reliable predictor for various consumer behaviors such as brand satisfaction, brand preference, purchase intention, and brand loyalty (e.g., Aguirre-Rodriguez, Bosnjak, & Sirgy, 2012b; Kressmann et al., 2006; Liu et al., 2012; Mazodier & Merunka, 2012; Rabbanee & Roy, 2015). According to Keller (1993), brand image would initially shape the user image of a certain brand. By comparing the user image and self-concept, people would make decision of purchase. Once the brand user image matches a customer's self-

concept, and then his or her purchase intention will be motivated. For example, Roy and Rabbanee (2015) studied the role of self-congruity in explaining the brand loyalty and brand attitude to luxury brands and found that customers preferred luxury brands that strengthen their self-concept in relation to prestige and recognition. Results from Roy and Rabbanee's research disclosed that the congruence between brand user image and customers' actual self-concept affected the customers' purchase intention. Park and Lee (2005) argued that the more a brand resembles a person's self-concept, the more likely the person holds positive attitude toward the brand. Hence, a person's attitude towards a brand influences his or her decision of purchase. Collectively, self-concept may play a major role in predicting the consumption of a brand.

# **Research on Brand-Self Congruity in Sport**

A few studies have considered the role of brand self-congruity in sport settings (e.g., Hang, 2002; Kwak & Kang, 2009; Mazodier & Merunka, 2012; Sirgy et al., 2008; Wallace et al., 2017; Xu & Lu, 2015). The research investigating the effect of brand self-congruity in sport settings includes two major perspectives: 1) a match between customers' self-concept and a sport brand and 2) a match between customer' self-concept and a corporate brand trough sponsorship. The first perspective posits that an individual's sport self-concept plays a central role in predicting sport consumption. For instance, based on an experiment of 230 undergraduate students, Hang (2002) found that students' choices of sport consumption rely on an evaluation of the match between their sport self-concept and user image of the brand. The overall brand-self congruity is highly related with one's attitude which significantly influence one's intention. Kwak and Kang (2009) empirically replicated the positive direct and indirect effect of brand-self congruity on

purchase intention. They highlighted the congruence between customers' self-concept and the brand user image as a reliable predictor to their purchase of team-licensed merchandise. Specifically, sport fans have a high self-concept associated with their favorite teams. The high match between licensed merchandises such as jerseys and caps and fans' self-concept represents a strong brand self-congruity which affects fans' purchase intention of sports team-licensed merchandise. Kwak and Kang's (2009) findings are consistent with Xu and Lu's (2015) research on sportswear. According to Xu and Lu (2015), customers' brand image has a positive relationship with their brand-self congruity, and they are more likely to buy their favorite brand regardless of the quality.

Previous research on brand-self congruity with sponsorship argues an indirect effect between customers' self-concept and the user image of a brand through sponsoring the customers' favorite sport teams or events (Mazodier & Merunka, 2012; Papadimitriou et al., 2016; Sirgy et al., 2008; Wallace et al., 2017). Building the spillover effect, Sirgy et al. (2008) argued that by sponsoring a sport team or event, firms can closely associate their brands with the sponsored team or event. because of the strong impact of team identification on fans' self-concept, sport fans are more likely to perceive consistencies with brands which sponsored their teams or events than those did not. To this end, they posited that brand-self congruity with a sponsorship event mediates the relationship between customers' self-concept and the user image of sponsors' brand. Based on a quasi-experiment, Mazodier and Merunka (2012) found that during the period of Olympic Games, people of the host city were highly influenced which led to their self-concept associated with the Olympic Games. The perceived fit between a corporate sponsor and the game then positively influenced people's brand-self congruity with the

sponsor's brand. Similar results were identified by Papadimitriou et al. (2016). By comparing the level of purchase intention between athletes, volunteers, spectators in a sport event, Papadimitriou et al. found a direct positive relationship between sport self-concept and purchase intention of event sponsors' product. Among the three research subjects, athletes expressed the highest intention of purchasing the sponsors' products. Collectively, these results supported the proposition that brand-self congruity would motivate customer purchase intention in a way of fulfilling the customers' symbolic needs which meets their self-concept.

## **Summary**

Sport self-concept is defined as attitudes and beliefs that an individual possesses with regard to his or her own sport skills and performance (Marsh et al., 2005). Based on Sirgy's (1982, 1985) conceptualization, sport self-concept can be categorized into actual sport self-concept and ideal sport self-concept. In sport psychology, growing literature proposed sport self-concept as an outcome of enhanced sport performance (Coatsworth & Conroy, 2009; Conroy & Coatsworth, 2007; Marsh et al., 2007). Previous research found that, besides attributes of sport itself, other extrinsic factors, such as emotional connection and inclusion, would contribute to the development of sport self-concept associating with sport participation. In addition, sport self-concept influences people's behavior of purchase through brand-self congruity (Hosany & Martin, 2012).

Specifically, people's purchase behaviors (e.g., buying functional sportswear) are motivated to bridge the gap between their actual sport self-concept (e.g., amateur runner) and ideal sport self-concept (e.g., professional runner).

#### **Brand Extension**

#### **Definition of Brand Extension**

Brand extension is a marketing strategy that introduces a new product to the public by associating the product with a well-known brand (Zimmer & Bhat, 2004). The newly introduced product or brand is commonly referred to as a brand extension, and the existing brand is called a parent brand. A successful brand extension depends on the effect of customers' brand association on consumption (Aaker & Keller, 1992). Brand association represents customers' knowledge and memory of a specific brand. Positive brand association influences customers' decision of future consumption. If customers are in favor of an existing brand, they are likely to accept and adopt a new product or service.

There are two primary forms of brand extension: category extension and line extension (Völckner & Sattler, 2006). The category extension (or horizontal extension) reveals a situation where an existing brand is associated with a new product that is not in the same product category as core products of the existing brand. Within the current research context, the NRC is a category brand extension of Nike. Its major product, marathon training service, is different from Nike's core product, sportswear. The line extension (or vertical extension) represents a situation in which a brand extension is introduced in the same product category of its parent brand, but is differed by price and quality. The line extension is common in the hospitality industry (Völckner, Sattler, Hennig-Thurau, & Ringle, 2010). Most well-known hotel brands operate several subbrands hotels that vary in their prices and qualities such as the Marriot Hotels and Courtyard Inns by Marriot.

### A Reciprocal Effect of Brand Extension on Parent Brand

Because of a close connection between a brand extension and its parent brand, scholars believe that a brand extension has a reciprocal effect on its parent brand (e.g., Balachander & Ghose, 2003; Dwivedi et al., 2010; Milberg & Sinn, 2008; Salinas & Pérez, 2009; Zimmer & Bhat, 2004). In general, when a brand extension is successful or favored by customers, it may reinforce customers' association and preference to its parent brand. Conversely, if an extension is failed or not accepted by customers, it may dilute customers' attitude and preference to the parent brand.

There is a long line of research suggesting that the reciprocal effect of the brand extension on the parent brand depends on the degree to which the attributes of an extension are consistent with those of its parent brand (e.g., Diamantopoulos, Smith, & Grime, 2005; Keller & Sood, 2003; Loken & John, 1993; Salinas & Pérez, 2009; Walsh & Williams, 2016). The perceived brand-extension fit represents that some attributes of a brand extension overlap with those of its parent brand (Keller & Sood, 2003). The shared attributes include both tangible and intangible aspects such as brand image, products, and customers' beliefs (Ahluwalia & Gürhan-Canli, 2000; Diamantopoulos et al., 2005). This line of research derives from the typicality-based model (Loken & John, 1993; Rothbart & Lewis, 1988), which argues that customers' association to a brand is established by a set of attributes. According to this model, the more attributes a person shares with a brand, the more typical customer of the specific brand the person is, which predicts his or her preference and behavioral intention to the brand. With respect to the brand extension, if customers perceive an extension shares more attributes with its parent brand which they are in favor of, the extension will be regarded as consistent with its parent brand.

Customers' associations to the parent brand would be activated, and they are more likely to make an inference from the extension to the parent brand.

Building on this proposition, Loken and John (1993) hypothesized that any inconsistent attributes brought by a typical brand extension may cause dilutions to customers' impression of the parent brand. Conversely, a dilution will not occur when a brand extension is consistent with its parent. However, empirical research provided mixed results in relation to the proposition that the perceived brand-extension fit positively influence customers' association with the parent brand, leading to an inconclusive explanation for the reciprocal effect (e.g., Ahluwalia & Gürhan-Canli, 2000; Keller & Sood, 2003; Kim, Lavack, & Smith, 2001; Salinas & Pérez, 2009). For example, Loken and John (1993) found that when customers perceived a consistency between a brand extension and its parent brand, their evaluations to the parent brand increased when they were satisfied with the brand extension. However, customers' evaluations or attitudes to the parent brand did not change when their perceived brandextension fit was low. Ahluwalia and Gurhan-Canli (2000) found that the negative reciprocal effects can occur when customers' perceived brand-extension fit is extremely low, suggesting that an unrelated brand extension may distract and confuse customers' attention to a parent brand which decreases customers' evaluations to the parent brand.

# Research on Brand Extension in Sport

When compared to substantial research in the management and marketing literature, brand extension research focusing on sport is relatively limited (e.g., Apostolopoulou, Papadimitriou, & Loukas, 2004; Campbell & Kent, 2002; Roper, Abosag, & Hind, 2012; Walsh et al., 2012; Walsh, Hwang, Lim, & Pedersen, 2015).

Among this limited research, most concentrated on the effect of a parent brand on the development of a brand extension; however, the reciprocal effect of an extension on its parent brand has not yet been comprehensively examined.

Previous research on the reciprocal effect of brand extension in sport suggests that brand extensions associated with sport-related parent brands have a stronger reciprocal effect, compared to those with non-sport related parent brands (Walsh et al., 2015; Walsh & Ross, 2010). In particular, the perceived brand-extension fit has been found to significantly influence customers' evaluation and preference to sport-related parent brands (Roper et al., 2012; Walsh & Williams, 2017). The primary reasons for the significance of perceived brand-extension fit in sport organizations include: (1) sportsrelated features strengthen the connections between an extension and its parent brand, which increases customers' perceived brand-extension fit; and (2) the unique fandom relationship and emotional connection make sport fans be more committed customers of sport-related brands (Apostolopoulou et al., 2004; Kwak & Kang, 2009; Roper et al., 2012; Williams et al., 2015). For example, Kwak and Kang (2009) found that sport fans were likely to buy team-licensed merchandise such as jerseys and caps because the teamlicensed merchandise (brand extension) has a high fit with their favorite team (parent brand). Buying the licensed merchandise bolsters people's self-concept as sport fans, which enhances the perceived congruence between sport fans' self-concept and their favorite teams. By investigating customers' experience of women's only fan club (a brand extension) within the NFL, Williams et al. (2015) found that female fans who comprised the women's only club have a higher association and identity with the NFL and the franchise than those who did not, which moderately predicted their behavioral

intention to support the NFL. The findings are consistent with the primary purpose of brand extension in sport which is to enhance customers' (or fans') identification with sport teams by enriching customers' experiences (Apostolopoulou et al., 2004; Walsh & Ross, 2010).

An emerging stream of research focuses on understanding how the use of sport teams as a brand extension will influence customers' evaluation and preference to a parent brand (Walsh, Chien, & Ross, 2012; Walsh et al., 2015). The findings of Walsh et al.'s (2012) research revealed that sport-related extensions cannot enhance customers' association with non-sport related parent brands because of the strong emotional connection established between fans (customers) and sport teams. Sometimes, this strong connection may even weaken customers' awareness of the non-sport related parent brand. In the later research, Walsh et al. (2015) found that customers who are committed to a sport team (a brand extension) are more likely to pass their emotions and opinions to its parent brand who is involved in the team building. Indeed, the customers' support to the parent brand is relatively high when the parent brand is also a sport-related brand.

### Summary

Brand extension is an effective way for an existing brand to expand its markets (Zimmer & Bhat, 2004). Customers' perception of the fit between a brand extension and its parent brand determines the success of the extension. Based on the typicality-based model (Loken & John, 1993; Rothbart & Lewis, 1988), a brand extension is expected to have a reciprocal effect on enhancing customers' awareness of and preference to its parent brand. When customers perceive that a brand extension has a high similarity with its parent brand, they are likely to associate it with its parent brand. When attributes of an

extension are significantly different from those of its parent brand, customers will modify their association with the parent brand based on their experience of the extension (Loken & John, 1993). In the sport domain, the association between a brand extension and its parent brand is stronger than that in non-sport related fields because the attributes of sport increase customers' perceived brand-extension fit and sport fans' emotional connection with sport brands strengthen their commitment and behavioral loyalty (Papadimitriou et al., 2004; Walsh et al., 2015; Walsh & Ross, 2010; Williams et al., 2015). Customers' attitudes and preferences of sport-related brand extensions are likely to be transferred to their association with sport related parent brands.

#### **CHAPTER 3**

### **METHODOLOGY**

The purpose of this study is to understand how sport companies may drive customers' purchase intention by enhancing sport self-concept as runner through their increased running participation. The methodology chapter is organized into: (1) Research Setting, (2) Research Design, (3) Participants, (4) Procedure, (5) Pilot Study, (6) Instrumentation, and (7) Data Analysis.

### **Research Setting**

The current study examined a customer–brand self-congruity change through participation in a sport training program operated by a multinational sport manufacturer. The program is Nike+ Run Club (hereafter NRC), which provides free marathon training service to the public. Launched by Nike in 2014, the NRC serves to inspire people to go out and run for healthy lives (NRC, n.d.), operating in four metropolises in China: Beijing, Shanghai, Guangzhou, and Hong Kong. The current study focused on the NRCSH because it was the first NRC program in China and it has deeply influenced Shanghai runners. This section discussed how the NRCSH contributes to Nike's strategy of shared value creation.

In China, Nike has long been recognized as a manufacturer of basketball and soccer footwear. Due to the increasing competition with other sports manufacturers such as Adidas, ANTA, and Li-Ning, in 2014 Nike began to shift its marketing focus to sustain its profitability. As with Porter et al.'s (2011) three steps of CSV implementation, Nike initiated their new business strategy by identifying social issues that were consistent with the company's interest. Nearly 66% of Chinese are physically inactive, which implies

comparatively poor health conditions among the population. At the same time, people's needs of participating in sport for health are increasing because of growing socioeconomic conditions recently experienced in China (Marmot & Bell, 2012). Taken together, China represents a huge underserved market for sport. As a sport manufacturer that has strong expertise in creating running shoes, Nike saw advantages in promoting products for running—a sport that had been unpopular in China, with participation mostly taking place in physical education classes only. Aware of potential market opportunities, Nike decided to implement CSV initiatives that aimed to create new market demands for running-related products by cultivating runners and encouraging running participation (i.e., reconceiving products and markets).

After selecting the business goal based on the social issues identified, the next step of CSV implementation focuses on planning relevant business activities that connect social improvements with economic outcomes (Porter et al., 2011). In this step, Nike conducted a series of promotional activities to increase and sustain the population of runners, such as launching the NRCSH, sponsoring and organizing marathon events, and fostering runner communities. Among these activities, the NRCSH plays the most central role in Nike's CSV, because it directly increases the number of runners (who can become Nike's future customers) by inspiring people to go out and run. The NRC is operated under the guidance of a values statement—SEVEN TRUTH:

(1) We are all meant to be runners; (2) All runners need to be athletes; (3) Every pace has a purpose; (4) Respect the run but never fear it; (5) Embrace your weaknesses; (6) Measure success in as many ways as possible; and (7) We believe in you, even when you don't. (NRC, n.d., p. 1-7)

Following the guidance of this values statement, NRC aims to encourage people's sport participation by providing free professional marathon training and increase people's awareness of healthy living through enhanced sport performance. In particular, unlike a traditional training camp that is goal oriented (e.g., aimed at winning the first prize or improving personal records), the NRCSH focuses on providing customers with positive experiences of running. It attempts to make running a source of enjoyment for customers and to sustain their long-term participation. Guided by the core values of encouraging people to run for fun and enjoy a healthy lifestyle with running, the NRCSH offers six different free training courses for all levels of runners, from beginners to veterans, including (1) Begin To Run, (2) Together Run, (3) Local Run, (4) Speed Run, (5) Long Run, and (5) Training Run (NRC, n.d.). Customers can choose their preferred courses autonomously. To enrich people's experiences and enjoyment, the NRCSH periodically hosts special running events, such as Breaking Two, 5L Meet, and Women Night (NRC, n.d.). Three months before major marathon races (e.g., Shanghai International Marathon and Hong Kong Marathon), the NRC holds specific training camps and distribute training pamphlets to those who want to participate in the races (NRC, n.d.). Furthermore, to maximize the effect of the NRCSH, Nike sponsors various periodic running events in Shanghai, ranging from 3K to marathon, to enrich people's experience of participation.

To leverage business opportunities, the NRCSH incorporates multiple marketing promotions into their operations. For example, the gathering place of each training course is set in a local Nike store, which increases customers' exposure to Nike's brand and products. The more an individual participates in the NRCSH courses, the more this person visits Nike stores. Notably, the NRCSH offers its customers a unique opportunity

to wear Nike's latest running shoes during the training period and experience and evaluate the shoes, which could increase the possibility of purchases.

The third step of CSV implementation is to define ways for measuring the social and economic value (Porter et al., 2011). Currently, Nike relies on the ratio of annual revenue growth in running products and the market share covered to measure the economic advancement. With respect to the social value, the number of runners inspired by the program is calculated (NRC, n.d.). In this regard, the NRCSH has made great achievements in the past four years. For example, in 2016, the NRCSH served more than 25,000 customers and increased the exposure of Nike's brand and products. In the same year, the overall rate of sport participation reached 45.2%, and running replaced brisk walking as the most preferred leisure sports for Shanghai residents (GASC, 2017). The increased number of runners and popularity of the NRCSH and related marathon events made Nike the most preferred running brand of the year (Resonance China, 2016).

Overall, the influence of the NRCSH on running participation and consumption of running-related products are aligned with the definition of CSV (Porter & Kramer, 2011).

### **Research Design**

The research design of this study was web-based survey research which aimed to collect data from runners who registered as members of the NRCSH. Survey-based research design is an appropriate research method for social science (Heiervang & Goodman, 2011; Wright, 2005). In particular, the adoption of web-based survey method can help obtain sample responses from a large population with the use of carefully designed questions (Wright, 2005). Other advantages of web-based surveys include: respondents are able to answer questions privately, which would guarantee

confidentiality and elicit more truthful responses than other designs, such as face-to-face interviews; all respondents would receive the same set of questions, which likely result in high reliability; and time would be flexible for both researchers and respondents (Heiervang & Goodman, 2011; Wright, 2005).

When using a web-based survey method, there are four sources of systematic error that may reduce research validity: (1) coverage error, (2) sampling error, (3) non-response error, and (4) measurement error (Couper, 2000; Dillman & Bowker, 2001; Shropshire, Hawdon, & Witte, 2009). First, coverage error refers to a potential bias of disproportionate sampling associated with the use of web-based surveys that can exclude those who do not frequently access the Internet (Dillman & Bowker, 2001). One potential solution for reducing coverage error would be to limit the study population based on additional restrictions (e.g., participants who registered as members of NRC community), rather than focusing on a larger population (e.g., all runners in Shanghai).

Second, sampling error represents a discrepancy between sample estimation and population (Couper, 2000; Dillman & Bowker, 2001). The sampling error would influence research only when the research purpose is to generalizing sample results to a population. This purpose of generalizability does not apply to the current study because the goal of the current study is to explore how sport organizations might implement CSV, which has not yet been comprehensively researched and adopted in the sports domain. At the current stage, it is more important to identify the mechanism of CSV implementation with a focused research context than seeking generalizability. In addition, considering a large number of respondents a web-based survey can reach, the sampling error is not as influential as the other errors discussed here.

Third, non-response error arises "through the fact that not all people included in the sample are willing to or able to complete the survey" (Couper, 2000, p. 473). The non-response error threatens web-based survey due to its comparative lower response rate than traditional mail or telephone-based survey (Kaplowitz, Hadlock, & Levine, 2004; Shih & Fan, 2008). The non-response error, especially the unwillingness to respond, can be addressed by providing incentives to encourage response rate (i.e., respondents can enter into a lottery for a valuable prize by finishing the survey; Sauermann & Roach, 2013), or comparing early respondents with late respondents to avoid analysis bias due to non-respondents (Jordan, Walker, Kent, & Inoue, 2011).

Finally, measurement error entails the extent to which respondents' answers represent real values which are to be measured. The measurement error is problematic for web surveys because researchers are not able to provide further instructions when respondents are confused with questions (Couper, 2000). To address the issue arising from measurement error, each survey should be designed with precisely worded questionnaire item and appropriate guidance for answering questions (Chisnall, 2001). Besides, the application of structural equation modeling (SEM) allows the study to use latent variables for regression analysis, which is an effective way to incorporate measurement errors into the analysis (Fornell & Larcker, 1981).

Additionally, it is important to note that problems caused by common method bias, which are unavoidable in using self-report surveys, can bias the true results of this study (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). According to Podsakoff et al.'s (2003) review, common method bias arises due to the characteristics of the measurement

approach used. Potential sources of common method bias that may influence the current research include: illusory correlations, social desirability, and consistency effect.

Illusory correlations refer to the situation where respondents assume cooccurrence of phenomena described in their surveys, and thus their "assumptions may introduce systematic distortions when correlations are derived from the ratings" (Berman & Kenny, 1976, p. 264). Social desirability represents the condition in which respondents prefer to report answers that are culturally acceptable and normatively appropriate (Crowne & Marlowe, 1960; Van de Mortel, 2008). This preference may result in a situation where answers reported are inconsistent with reality. Consistency effect is associated with illusory correlations, and indicates that respondents would try to keep consistency when rating themselves (Podsakoff et al., 2003). Thus, consistency effect is originated from rational thoughts rather than reality. Respondents influenced by consistency effect may provide what they think are rationally correct based on their previous ratings, rather than their real feelings and status. Collectively, these three sources of common method bias may significantly influence the results obtained from the current research design. To minimize the influence of common method bias, following Podsakoff et al.'s recommendations, the predictors and criterion variables were measured separately. In particular, this study applied a time lag of eight days between the two waves' measure of predictor (i.e., caring, praising, role modeling, and running participation) and criterion variables (i.e., sport self-concept as runner, brand-extension fit, brand-self congruity, and purchase intention). The time lag separation is effective in reducing the influence of consistency effect and illusory correlations (Podsakoff et al., 2003). An eight-day interval between the two waves of data collection is appropriate to

reduce the possibility for the respondents to recall their previous answers, which deals with the consistency effect. Moreover, an eight-day interval is not too long which can increase the possibility that the first-wave respondents would answer the second-wave survey.

### **Research Participants**

The study population of the current research consisted of 2,677 members of the NRCSH who registered in NRC community and participated in NRC courses within the recent three months prior to the data collection. As mentioned in the previous section, a two-wave design was adopted for data collection. Six hundred and forty-four NRC members participated in the first wave data collection and 311 of them completed the second wave survey for further analysis. Convenience sampling was used to recruit study samples, which is a typical and broadly used non-probability sampling method (Valliant & Dever, 2011; Yeager et al., 2011). Convenience sampling is suitable to the current study in the following ways. Foremost, the use of convenience sampling increases access to respondents, which can help generate a relatively large sample size within a short period (Valliant & Dever, 2011). Furthermore, convenience sampling would be likely to result in a high response rate because the participants would be willing to cooperate with a given project. However, limitations for this sampling method must be acknowledged. The participants with convenience sampling are not randomly selected, and thus the sample results are not representative of the population (Yeager et al., 2011). In addition, due to high self-selection bias, outliers from convenience sampling would be more significant compared to random sampling (Yeager et al., 2011).

#### **Procedure**

Access to contact information of the study participants was granted by NRCSH. Institutional review board (IRB) approval to this research was obtained from the University of Minnesota Human Subjects Committee. After obtaining contact information of the NRC community members from NRCSH, an invitation message was sent out to conveniently selected research participants. A link to an online platform holding the web-based survey was included in the introductory message, inviting the NRC members to answer the survey. The front page of the survey included a consent form, which explains the purpose of conducting the investigation and informs that participation in the survey is completely voluntary and that the confidentiality of participants' responses is guaranteed. An e-mail reminder was sent to the participants who had not completed the survey within two weeks of the initial invitation date. A second follow up e-mail was sent a week later. To secure an adequate sample size, a conventional paper-based survey method was also used at some of the NRC courses as supplementary data collection. At the end of the paper-based survey, respondents were asked to leave a contact if they would like to complete the second wave survey after eight days. The author's contact and contact information of the IRB was included in every email for the participants to opt out of any further survey-related questions. I responded to requests for any information or clarification when participants request. In addition, survey incentives were used to increase the response rate and encourage the respondents' participation in the second wave of data collection. At the end of the survey invitation, participants were informed that by completing the second wave survey, they will have an opportunity to enter into a lottery for one of the 20 RMB100 (about \$16) gift card. A note of thanks was automatically sent to each participant when he or she completed the survey.

## **Pilot Study**

### **Purpose of the Pilot Study**

Because there is no existing research that comprehensively investigated CSV in sports, a pilot study is necessary to: (a) confirm that NRC incorporates the principles of CSV and (b) identify specific behaviors that frontline employees of NRC use to realize their organization's goal of shared value creation. Therefore, the purpose of this pilot study was to: (a) generate themes illustrating types of behavior that NRC trainers adopt to facilitate customers' participation in running through their interactions with the customers; and (b) verify whether NRC can be regarded as a CSV initiative. Drawing from the existing conceptualization of CSV indicating that a CSV program would incorporate diverse goals of value creation into a single business activity (Porter & Kramer, 2011; Schmitt & Renken, 2012), it was predicted that at least three different goals of value creation would be perceived by the frontline employees of NRC.

### **Participants and Procedures**

The context of the pilot study is the same as the research setting discussed above (i.e., NRCSH). Data were collected through semi-structured interviews with NRC coaches and senior pacers who are the frontline employees for NRC. These individuals follow the guidance of SEVEN TRUTH and coach customers' running skills through direct interactions. Thus, they are likely to have a comprehensive understanding of how NRC works, and their behavior can influence customers' interest in running. Interviewees were recruited using purposive sampling, which is to identify important sources of

variation in the population and then to select a sample that reflects the variation (Robinson, 2014). Considering the purpose of this pilot study, the interviewees should be those who had engaged in NRC for a constant period and had a deep understanding of the objective and values of NRC. To this end, I set the criterion to only recruit interviewees who have worked for NRC for more than two years. Because the NRC coaches are required to work in NRC for at least two years, all coaches of NRC Shanghai (N = 4, all male) were included in the sample. I also contacted ten senior pacers (who worked in NRCSH for around two years) by email and explained the purpose of the interview. In the email, I indicated that they were able to opt out of the interview by not responding. Through this method of recruiting, six senior pacers (4 female and 2 male) were included. The final sample for the interviews consisted of ten frontline employees of NRC, as shown in Table 3.1. The interviewees' average length of service for NRC was three years, with the longest serving interviewee having four years of experience in NRC.

**Table 3.1 Characteristics of Interviewees** 

Interviewee Initials	Gender	Work Duration	Position in NRC
JY	Male	4 years	Coach
CP	Male	2 years	Coach
WB	Male	3.5 years	Coach
QL	Male	4 years	Coach
YY	Female	4 years	Pacer
YJ	Female	4 years	Pacer
HY	Female	2.5 years	Pacer
XC	Male	2 years	Pacer
HJ	Female	2 years	Pacer
SN	Male	2 years	Pacer

To facilitate the interviewees to share their work experiences in the interviews, and to enable them to speak freely about their views about NRC, I explained to them that the interview had no relationship with the company and the interview data would only be

used for this research. The exploratory nature of the research was subsequently explained to encourage the interviewees to speak as broadly as they wished on their perceptions of NRC as frontline employees.

All interviews were conducted between June and July 2017, and places for the interviews were selected by the interviewees. Each interview lasted approximately 45 minutes and was audio-recorded with the interviewees' permission. Each interview was guided by the following questions: (1) How do you understand the characteristics/values of NRC? (2) What are your expectations about the role as a NRC coach or pacer? (3) Were there any internal trainings that you received from NRC? (4) Can you share the procedures you use when serving runners in NRC courses? (5) What do you think that make NRC different from other training courses? (6) What do you care most in NRC? To gain an additional understanding of how NRC works, I observed two NRC courses and took field notes.

The interviews were taped and transcribed verbatim. The language used in the interviews was Mandarin, and the interviews were typed and translated to English by the author. To ensure the accuracy and consistency of the translation, all interview transcripts were further checked by an English as a Second Language (ESL) doctoral student who has expertise in both Mandarin and English.

### Analysis

All interview transcripts were input to Nvivo v.11.4 for coding. This pilot study adopted an approach of open coding, which is appropriate to the initial stage of the "analytic process through which concepts are identified" (Strauss & Corbin, 1998, p. 119). Following the procedures recommended by Strauss and Corbin (1998), each

interview transcript was carefully read to extract keywords and generate potential labels that were relevant to the research purposes. After finishing the open coding of the ten interview transcripts, decisions were made to compare and combine labels that have similar meaning or constitute a higher-level label. In addition, the conceptualization of CSV was used as a priori theory to generate a set of categories (Porter & Kramer, 2011; Schmitt & Renken, 2012). The new labels obtained from the open coding were then carefully read through and compared with the CSV categories, and finally three themes illustrating the perceptions of CSV were identified. Coding for identifying behavior that facilitates running performance was conducted in the same way.

#### **Trustworthiness**

The trustworthiness of the pilot study was examined following the guidance of Guba and Lincoln (1994). The criteria for ensuring qualitative research reliability include credibility, dependability, conformability, and transferability. Together these four criteria determine the extent to which a qualitative research is trustworthy (Guba & Lincoln, 1994). Checking transferability and conformability relies on replications of subsequent research by other researchers, and thus transferability and conformability were not tested in the current study. Credibility and dependability were checked by another doctoral student who is an expert in qualitative research methods. In particular, the doctoral student examined the initial themes and supporting quotations, and then provided feedback (Guba & Lincoln, 1994). For any disagreement in the results, an additional discussion was held between the doctoral student and me for modification.

## **Findings**

A number of emergent themes were identified in relation to the frontline employee perception of CSV and behavior that facilitates customer running performance. Below I present these themes with supporting quotations under two main sub-headings: Perception of CSV and behavior of facilitating running performance.

Perception of CSV. First, the definition of the perception of CSV is developed from the definition of perceived CSR (Lacey, Kennett-Hensel, & Manolis, 2015), which refers to employees' evaluation of how well their company meets its goal of shared value creation through business activities. Exploring frontline employees' perception of CSV is important because if frontline employees are unable to clearly perceive their organization's goal of shared value creation, they will not work toward achieving this goal, and hence it would be impossible for the organization to generate economic and social outcomes simultaneously. Building upon the interviews, the frontline employee perception of CSV can be summarized as the simultaneous achievement of three types of benefits through NRC: sport benefit, health benefit, and economic benefit.

Sport benefit. Sport benefit refers to increasing the number of sport participants and improving the quality of sport performance (Shilbury, Sotiriadou, & Christine Green, 2008). All ten interviewees held a clear image about the values statement of NRC as being inclusive to people who desire to run. For example, one of the coaches specifically stated: "NRC emphasizes that all kinds of sport brands have the responsibility to serve people's demand of sport. For those who would like to participate in our courses, we treat them equally. If people are here for running, we welcome all of them" (QL). Another respondent indicated the overall contribution of Nike to promoting the marathon in

Shanghai: "There were more than 20,000 people applied for the Shanghai International Marathon last year. The number would have been incredible before the year 2011. 2008 was my first time participating in the Shanghai International Marathon, and there were only 8,000 participants. I'm not saying it is all because of Nike, but it is undeniable that Nike contributed a lot to promoting the marathon in China" (JY).

Health benefit. Health benefit refers to health outcomes for participants generated by NRC. Health is broadly defined as a state of well-being, including emotional, physical, social, and spiritual health (Caldwell & Smith, 1988). Outdoor sport participation, such as running, has been found to be effective in reducing anxiety and stress, and enhancing body fitness with constant participation (Coleman & Iso-Ahola, 1993). An interviewee stated:

What people are pursuing for leisure now is different from that in the past, such as playing mahjong or cards. More and more people are now caring about their health. There are lots of ways for health, and to go running is one of them. I think I'm playing a role of a guide. I should tell them [participants] there are different types of running and necessary knowledge that they should know about running. (QL)

Furthermore, another participant highlighted: "Marathon is a special sport; without correct training, you may suffer from permanent injuries, but you would not know it until it becomes serious. We are here to provide you with scientific plan and help you avoid injuries" (WB).

**Economic benefit.** Economic benefit refers to financial performance and outcomes related to NRC. The respondents were in a general agreement that Nike is

making economic benefits from NRC. This view was reflected in comments such as: "When we are running along streets, people's first impression would be 'it is Nike's activity'" (YY). "The purpose of NRC is to attract more people to run, and then we can hold this population [through our service]. We actually hold the market of runners" (YJ). Employees held the view that economic growth can help the program development: "It is understandable that Nike is making money through operating NRC. Nike is a commercial organization. If our program (NRC) cannot contribute to the economic growth, our program would not be maintained" (CP).

**Behavior that Facilitates Running Performance.** Three themes of behavior the NRC coaches and pacers adopt to facilitate customers' performance of running emerged including: caring, praising, and role modeling. I discuss these below.

Caring. Caring entails the extent to which "an individual perceives a particular setting as supportive, friendly, and respected" (Brown & Fry, 2014, p. 209). Agreement reached among the interviewees about the notion that their caring behavior includes being respectful and inclusive to all runners, and ensuring that runners engage in healthy running practices. Illustrative examples of these include:

Our training service is open and accessible to all people. Whatever brand you wear, even though our [Nike's] competitors, we will welcome you to join us. (QL)

We put great emphasis on letting our runners run healthily. For example, before assigning training tasks, we will lead half an hour warm-up activities, including jogging, dynamic and static stretching. These are necessary because these activities can greatly avoid injuries during intensive training. (XC)

In regard to the running community, the interviewees indicated:

NRC is different from traditional training camps. Although I'm titled as coach, I'm also a runner during courses. I run with all participants, and there is no hierarchy between coach and pacer, coach and participant, and pacer and participant. We're all runners. (JY)

Praising. Praise refers to an expression of positive affect about task-oriented behavior (Dweck, 2000). When being asked about the difference between NRC courses and the courses offered by other organizations, praising and encouraging are the most frequent words used to indicate the difference by the interviewees. Interviewees commented: "We will praise our participants when they finish each training task" (YY); "We encourage participants to run and finish by letting them know they are the best" (YJ); "If someone fall behind and want to give up, we will firstly accompany and encourage them to keep going" (JY).

Role modeling. The role model is defined as "a cognitive construction based on the attributes of people in social roles an individual perceives similar to him or herself to some extent and desires to increase perceived similarity by emulating those attributes" (Gibson, 2004 p. 136). Being a role model is especially emphasized by all coaches:

Our coaches will help runners correct their postures when they run with incorrect form. For example, if a runner is wagging from side to side, I will exemplify the correct posture and ask him or her to run after me. (JY)

We are a free program; people are not mandated to participate in. We should show people that we are the best in running, and you can be the same as us if you follow our path. (XC)

### **Discussion and Motivation for the Main Study**

To summarize, the results of the pilot study revealed that the frontline employees of NRC perceive the importance of simultaneously achieving three goals, including sport benefit, health benefit, and economic benefit. Thus, the NRC can be regarded as a program for shared value creation (Schmitt & Renken, 2012). This finding verifies the current research context as an example of CSV programs, thus supporting the legitimacy of the main study that seeks to examine outcomes of shared value creation of sport in this context.

In addition, the pilot study generated three themes of employee behavior (caring, praising, and role modeling) that may facilitate customers' running performance. The three themes, then, were adopted as defining constructs that capture employee behavior in the main study to examine the extent to which customers can perceive these constructs as well as these constructs' relationships with customers' level of sport participation. In particular, it can be assumed that the frontline employees, as members of their company, would be more sensitive toward goals and directions of their company (Punjaisri & Wilson, 2007). Thus, in the main study reported in this and next chapters, the three constructs of caring, praising and role modeling were further tested from the customers' perspective.

#### Instrumentation

The current study used survey-based items with a seven-point Likert scale (i.e., from 1 as "never" to 7 as "always") to measure most constructs. The adoption of measurement scales depended on a review of existing literature with the consideration of reliability and validity in the existing measurement. Reliability is concerned with the

equivalence of a set of independent measures of the same construct. The Cronbach's alpha is a widely-adopted coefficient for assessing measurements reliability. Cutoffs for adequate reliability should be scored of 0.70 or higher for new scales, and 0.80 or higher for established scales (Cronbach & Meehl, 1955). Validity is defined as the extent to which a scale measures what it is intended to measure (Kimberlin & Winterstein, 2008). There are two major types of validity assessment: construct validity and content validity. Construct validity examines the extent to which the measured variables are related to the construct measured by the instrument, namely convergent validity (Fornell & Larcker, 1981). In addition, examining construct validity requires the assessment of discriminant validity, which means any pair of different constructs are distinguishable. Content validity addresses how well "the test items are a sample of a universe in which the investigator is interested" (Cronbach & Meehl, 1955, p. 292). Generally, content validity is assessed by the judgement of experts in a given field.

#### Measures

The following part of this section describes the scales used for measuring the constructs examined in this study. Among the constructs, caring, praising, role modeling, and running participation were collected during the first wave of data collection and sport self-concept as runners, perceived brand-extension fit, brand-self congruity, and purchase intention were collected during the second wave.

Caring. To measure caring, Newton et al.'s (2007) caring climate scale was adopted to the current study context. Newton et al.'s scale measures perceived caring behavior from both trainers and other trainees. Because the current study focused only on trainers' behavior as an intervention for facilitating respondents' running performance,

items that measure behavioral intervention from other trainees were eliminated. As such, four items were retained for this study: (1) The trainers are friendly toward me; (2) The trainers are helpful; (3) The trainers are always available when I need them; and (4) I feel comfortable in the program.

Praising. The measure of praising was adopted from the Coaches' Autonomy Support Questionnaire (Coatsworth & Conroy, 2009), which consists of scales to measure two constructs: praising autonomous behavior and interest in athletes' inputs. This study used four items of the praising autonomous behavior with modifications to adapt the current research context: (1) The trainers praised me for choosing running; (2) The trainers praised me for my attitude during running; (3) The trainers praised me for my effort during running; (4) The trainers praised me for finishing running tasks.

Role modeling. Rich's (1990) four-item role modeling scale for behavior change was adopted. The four items include: (1) I am led by examples in the program; (2) The trainers set positive examples for others to follow; (3) The trainers exhibit the kind of professionalism that I try to imitate; and (4) The trainers are role models for me. In Rich (1997), all four items loaded significantly on the construct of role modeling, with their factor loadings ranging from 0.89 to 0.94. This scale also had a Cronbach's alpha score of 0.93, which indicates adequate reliability (Bush, Martin, & Clark, 2001).

Running participation. Respondents' running participation was assessed by three items adopted from Sato, Jordan, and Funk's (2014) measures of running participation. The first two items were (1) During the last three months, approximately how many kilometers per week did you run; and (2) During the last three months, how many times per week did you run. Given the specific influence of NRC courses in this research

context, the third question was adopted from Funk, Jordan, Ridinger, and Kaplanidou's (2011) measure of physical activity involvement: Which of the following statements best describes your level of sport participation during your participation in NRC courses?

Sport self-concept as runner. To assess sport self-concept as runner, a four-item scale derived from Duda and Nicholls' (1992) was used. Modifications are made to adapt the current context: (1) I feel myself share many similarities with a typical runner; (2) I feel happy when running; (3) I feel running has been an important part of my life; and (4) I try my best to make myself as a runner. Previous research provided reliability scores of 0.88 for this scale (Sazzazin, Rpverts, Cury, Biddle, & Famose, 2002).

Perceived brand-extension fit. Perceived brand-extension fit is defined as customers' perception of similarities or consistencies between a brand extension and its parent brand (Dwivedi et al., 2010). The measurements of perceived brand-extension fit were adopted from Salinas and Perez's (2009) three items of perceived image fit. The three items that will measure perceived brand-extension fit include: (1) NRC fits with Nike's brand image; (2) Launching NRC is appropriate for Nike; and (3) Launching NRC is logical for Nike. This scale has been applied to research investigating brand-extension fit in sport (Walsh et al., 2012).

*Brand-self congruity*. Brand self-congruity was measured using Xu and Lu's (2015) four-item scale, consisting of (1) The typical customer of Nike reflects the type of person who I am; (2) I like to see myself as a typical customer of Nike; (3) The image of Nike customer corresponds to my self-concept in many aspects; and (4) I feel a close connection to Nike customer. This scale had a Cronbach's alpha score of 0.87, which indicates adequate reliability (Xu & Lu, 2015).

*Purchase intention.* Purchase intention was measured by adopting Bian and Forsythe's (2012) four-item scale, which consists of (1) If I were going to buy a pair of running shoes, I would consider buying Nike's; (2) If I were shopping for a sport brand, the likelihood I would buy Nike is high; (3) My willingness to buy Nike's products would be higher than other sport brand; and (4) The probability I would consider buying Nike is high. In Bian and Forsythe's (2012) study, this scale demonstrated an adequate reliability score of 0.90.

### **Survey Translation**

Following the translation approach used by Doherty, Chen and Alexander (2014), all survey items were initially developed in English and subsequently translated into Chinese by the author who is bilingual. In order to confirm the accuracy of the Chinese translation, a back-translation technique was applied (Doherty et al., 2014; Inoue, Heffernan, Yamaguchi, & Filo, 2018). The Chinese survey was independently translated back to English assessing the equivalence to the original English survey by a doctoral student who majors in an ESL and uses Mandarin as the primary language. Finally, the original and back translated English survey were verified for content consistency by another doctoral student who is a native English speaker (Inoue et al., 2017). If items were identified inequivalent, modifications were made to the Chinese-written survey by incorporating suggestions from the native English speaker and the ESL student. After the translation, a pilot survey scale test was conducted using the Chinese-written survey to ensure consistency of the survey questions.

## **Pilot-Testing of Survey Scales**

Because the scales were developed in English, a pilot-test was conducted prior to the main study with a separate sample from the population to assess the reliability and validity of the scales. A questionnaire, including the scales for caring, praising, role modeling, running participation, sport self-concept as runners, brand-self congruity, and purchase intention, was distributed to runners at the beginning and the end of the NRC training courses during December 2018. Through convenience sampling, surveys were collected from 203 participants who met the sample inclusion criteria.

Previous research suggests that the construct of running participation should be created as a formative construct to fully capture the meaning of the measures (Sato et al., 2014). Because the inclusion of a formative construct changes the method used for data analysis which may weaken the power of model estimation (The details of the analysis was discussed in the following section of data analysis.), the pilot testing treated all the constructs as reflective and ran a confirmatory factor analysis (CFA) to assess the reliability and validity of the scales. The results of CFA revealed that the original model yielded a poor data-model fit ( $\chi^2/df = 3.34$ ; CFI = 0.91; RMSEA = 0.09; SRMR = 0.12), which implied that modifications were necessary before further analysis. By looking at the factor loadings reported in Table 3.2, all factor loadings were above the recommended threshold of 0.60 (Heene, Hilbert, Draxler, Ziegler, & Bühner, 2011), except for the third item of running participation ( $\beta = 0.18$ ). The low loading suggested the exclusion of this item. The model was re-tested after excluding the third item of running participation. The goodness-of-fit indices of the modified model were much

improved ( $\chi^2/df = 2.66$ ; CFI = 0.94; RMSEA = 0.08; SRMR = 0.05), suggesting an acceptable model fit.

Table 3.2 provided construct reliability (CR), and average variance extracted (AVE) for the modified model. All constructs exceeded the recommended levels of construct reliability (CR) above 0.70 and average variance extracted (AVE) above 0.50, suggesting that the constructs had adequate reliability and convergent validity (Fornell & Larcker, 1981). Table 3.3 showed that the square root values of AVE for caring (0.85), praising (0.95), role modeling (0.89), running participation (0.74), sport self-concept as runner (0.86), brand–self congruity (0.77), and purchase intention (0.89) exceeded correlation coefficients, which supported the discriminant validity of the constructs.

The quality of the measurement model was much improved after excluding the item with low factor loading. The power of two measurement items, however, was not substantial in representing a latent construct (Kline, 2015). In order to address the representative issue, a third item was added to the construct of running participation. This new item was extracted from Funk et al.'s (2011) item of physical activity level, which measures the level of intensity and duration of running using a 7-Likert scale, from (1) "I have not been active" to (7) "I was active, and most of the activity was intense." The inclusion of this item is appropriate because Sato et al.'s (2014) scale was developed based on Funk et al.'s scale. More importantly, the results of the pilot testing suggested that running participation may be more appropriate to be specified as a formative construct than a reflective construct. Thus, the main study analyzed the model by including running participation as a formative construct.

Table 3.2 Results of the Measurement Model (N = 203)

Caring I am treated with respect. The trainers are always available when I need them. The trainers are helpful. The trainers encourage me to try my best.  Praising The trainers praised me for choosing running. The trainers praised me for my attitude during running. The trainers praised me for my effort during running.	0.82 0.82 0.83 0.89	0.91	0.71
The trainers are always available when I need them. The trainers are helpful. The trainers encourage me to try my best.  Praising The trainers praised me for choosing running. The trainers praised me for my attitude during running. The trainers praised me for my effort during running.	0.82 0.83 0.89		
The trainers are helpful.  The trainers encourage me to try my best.  Praising  The trainers praised me for choosing running.  The trainers praised me for my attitude during running.  The trainers praised me for my effort during running.	0.83 0.89		
The trainers encourage me to try my best.  Praising  The trainers praised me for choosing running.  The trainers praised me for my attitude during running.  The trainers praised me for my effort during running.	0.89		
Praising The trainers praised me for choosing running. The trainers praised me for my attitude during running. The trainers praised me for my effort during running.			
The trainers praised me for choosing running.  The trainers praised me for my attitude during running.  The trainers praised me for my effort during running.	0.04		
The trainers praised me for my attitude during running.  The trainers praised me for my effort during running.	0.04	0.96	0.86
The trainers praised me for my effort during running.	0.94		
	0.97		
	0.93		
The trainers praised me for finishing running tasks.	0.88		
Role Modeling		0.94	0.79
The trainers provide a good model for me to follow.	0.83		
I am led by examples in the program.	0.90		
The trainers exhibit the kind of professionalism that I try to imitate.	0.94		
The trainers are role models for me.	0.87		
Running Participation (measured as continuous variables)		0.75 <sup>a</sup>	0.54 <sup>a</sup>
During the last three months, how many times per week did you run?	0.82		
During the last three months, approximately how many kilometers per week did you run?	0.91		
During the last three months, approximately how many times per week did you participate in the NRC courses?	0.18		
Sport Self-Concept as Runners		0.92	0.74
I feel myself share many similarities with a typical runner.	0.89		
I feel happy when running.			

I feel running has been an important part of my life.	0.85		
I try my best to make myself as a runner.	0.82		
Brand-Self Congruity		0.95	0.59
The typical customer of Nike reflects the type of person who I am.	0.75		
I like to see myself as a typical customer of Nike.	0.85		
The image of Nike customer corresponds to my self-concept in many aspects.	0.85		
I feel a close connection to Nike customer.	0.90		
Purchase Intention		0.94	0.80
If I were going to buy a pair of running shoes, I would consider buying Nike's.	0.90		
If I were shopping for a sport brand, the likelihood I would buy Nike is high.	0.91		
My willingness to buy Nike's products would be higher than other sport brand.	0.95		
The probability I would consider buying Nike is high.	0.82		

Note: Unless noted otherwise, items were measured on a 7-point Likert scale ranging from never (1) to always (7);  $\beta$  = Factor loadings; all standardized factor loadings were significant (p < 0.01); CR = Construct reliability coefficients; AVE = Average variance extracted. <sup>a</sup> The result is calculated without the item of low loading.

Table 3.3 Summary of Constructs Means, Standard Deviations, and Correlations

	Variable	Mean	SD	1	2	3	4	5	6	7
1	Caring	6.42	0.89	0.85						
2	Praising	6.28	0.99	0.75	0.95					
3	Role modeling	6.29	0.96	0.71	0.59	0.89				
4	Running participating	8.21	3.45	0.24	-0.09 <sup>a</sup>	0.02 a	0.74			
5	Sport self- concept as runner	5.51	1.46	0.37	0.20	0.41	0.50	0.86		
6	Brand-self congruity	5.92	1.23	0.62	0.52	0.59	$0.06^{a}$	0.45	0.77	
7	Purchase intention	5.41	1.38	0.48	0.43	0.38	0.02 a	0.36	0.74	0.89

Note: N = 203; SD = Standard deviation; values in parentheses represent the square root of the average variance extracted. <sup>a</sup> nonsignificant correlation

### **Data Analysis**

The current study used structural equation modeling (SEM) to test the theoretical model. SEM is a widely-used method which represents causal relation of multivariate data based on priori theories (Kline, 2015). The origin of SEM stem from an integration of factor analysis (the measurement model) and path analysis (the structure model; Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014; Kline, 2015; Weston & Gore, 2006). The function of a measurement model entails "relationships between observed variables (e.g., instruments) and the construct or constructs those variables are hypothesized to measure" (Weston & Gore, 2006, p. 724), while the function of a structural model addresses relationships among those constructs. SEM shares some similarities with other traditional statistical methods (e.g., multiple regression, analysis of variance [ANOVA], path analysis), such as assuming linearity, concerning basic assumptions of distribution, and only determining correlation (Weston & Gore, 2006).

Besides the aforementioned similarities, SEM has some advantages over the regression methods. First, SEM is performed with latent variables, which are constructed by multiple observed variables (Kline, 2015). To this end, measurement errors of observed variables were incorporated into analyses, increasing chances of resulting in correct conclusions. Second, SEM involves multiple test statistics and a series of fit indices simultaneously, and allows a set of relations between multiple independent variables and one or more dependent variables to be examined within the same model (Ullman, 2006). Third, the ability to test latent variables with multiple test statistics simultaneously is more efficient in examining complex relations than other traditional statistical approaches that test a hypothesis at the level of one measured variable,

reducing the possibility of mismatch between the hypothesis and data (Kline, 2015; Ullman, 2006).

This dissertation adopted the variance-based partial least squares approach (PLS– SEM) for analyses (Hair et al., 2014; Lohmöller, 1989). Differing from the widely-used covariance-based approach (CB-SEM), which uses maximum likelihood estimation to test latent variables with multiple test statistics, PLS–SEM models relationships between latent variables with ordinary least square regression and bootstrap estimation. The primary reason for choosing PLS-SEM over CB-SEM is to take advantages of PLS-SEM's ability to deal with non-normal data and formatively measured constructs (Hair et al., 2011). According to Hair et al. (2014), the situation of non-normal data occurs when data collected for analysis does not display a multivariate normal distribution, which is very common in the field of social science. The violation of multivariate normality may cause biased statistics such as an inflation of model fit. Such violation weakens the power of CB-SEM using maximum likelihood approach to minimize discrepancies between estimated and sample models and hence has restrictions to multivariate normality, sample size, and theoretical basis (Hair, Sarstedt, Ringle, & Mena, 2012). Conversely, PLS-SEM focuses on offering effective prediction and makes prediction based on multiple regressions, which is robust to the violation of the multivariate normality (Lohmöller, 1989).

The formative construct represents a specific form of a latent variable that receives its meaning from observed variables (Diamantopoulos, Riefler, & Roth, 2008). Differing from the reflective construct, which is specified as common cause for all observed variables associated, the formative construct is the function of its observed

variables. In this regard, analyzing formative constructs with CB–SEM may cause problems of under-identification because the items for a formative construct are not always correlated (Hair et al., 2014).

This dissertation study used PLS–SEM for data analysis based on the two-step approach proposed by Hair et al. (2014), a widely-cited, general guidance for performing PLS–SEM (Lowry & Gaskin, 2014). This two-step modeling approach consists of (1) evaluating the measurement model through CFA, and (2) assessing the structural model through predictive power, effect size, and predictive accuracy to specify solid estimation (Hair et al., 2014). The following two sections describes the analyses of measurement and structural models based on the model specification that was discussed in CHAPTER 1.

## **Analysis of Measurement Model**

Before testing the hypothesized paths between constructs, an examination of reliability and validity of the measurement model was performed using SmartPLS 3.0. The purpose of the examination is to evaluate whether hypothesized relationships between a given construct and observed variables are well supported by the data collected (Hair et al., 2014). It helps researchers to minimize risks of rejecting the proposed model because of problems stemming from measurement inadequacies. Since the specified model included reflective (caring, praising, role modeling, sport self-concept as runner, brand-extension fit, brand-self congruity, and purchase intention) and formative constructs (running participation), two approaches were employed to test each of the reflective and formative constructs separately.

**Reflective construct.** A CFA was employed to evaluate the reliability and validity of the reflective constructs. The evaluation criteria include internal consistency reliability,

convergent validity, discriminant validity, and factor loadings on each observed variable (Hair, Ringle, & Sarstedt, 2011). Internal consistency reliability was examined by computing the construct reliability (CR) score. For each construct, a CR score over 0.70 is regarded as reliable (Fornell & Lacker, 1981). Convergent validity was then assessed by obtaining the average variance extracted (AVE) for each construct and factor loadings for each observed variable (Hair et al., 2011). Convergent validity is supported when a given construct's AVE is 0.50 or higher (Fornell & Lacker, 1981). Finally, discriminant validity was tested by employing Fornell and Larcker's (1981) approach and crossloadings comparison (Hair et al., 2011). The inter-correlation matrix of the reflective constructs was calculated. Then, the diagonal values were replaced by square root of the AVE of each construct. When the square root of AVE for each construct surpasses its correlation with any other constructs, the construct measured is regarded as distinct from other constructs. The statistical significance of factor loadings on each observed variable influences the adequacy of the measurement model as well. To ensure reliability of the observed variable, its factor loading should be more than 0.60 (Heene et al., 2011). The discriminant validity is also assessed by performing cross-loadings comparison (Hair et al., 2011). This assessment requires that each observed variable should have a higher loading on its assigned construct than that on any other construct. Meeting all criteria discussed above confirms the reliability and validity of the measurement model.

Formative construct. The formation of a formative construct is determined by whether observed variables capture the characteristics of the construct (Hair et al., 2011). Hence, a formative construct does not require its observed variables to share some similarities. In this regard, the evaluation criteria for the reflective construct are not

applicable to examining the formative construct. In order to test the formative construct, this dissertation followed the approaches recommended by Hair et al. (2011) and Lowry and Gaskin (2014), including content validity, convergent validity, multi-collinearity, and the significance and relevance of the contruct.

Foremost, to ensure content validity, measures of running participation were adopted from previous research that defined and measured the construct in the same way. Then two experts assessed whether the items capture the characteristics of running participation. Convergent validity was examined by computing the correlation between running participation and a single-item capturing the construct (Hair et al., 2011). In the current study the item chosen for calculation was the first item forming running participation (During the last three months, how many times per week did you run?). A high correlation coefficient indicates an adequate convergent validity (Hair et al., 2011). Multi-collinearity was examined by obtaining the variance inflation factor (VIF) for the measurement items forming the formative construct. An item with a VIF value over 5.0 represents that 80 percent of the item's variance is explained by the other items forming the same construct. A high overlap may engender potential multi-collinearity problems, and hence an item with a VIF value of over 5.0 may be removed (Hair et al., 2011). The significance and relevance of the construct were tested by calculating the weights and tvalues for each observed variable under bootstrapping routine (5,000 times resampling). The significance and relevance of the construct is supported when the weights of all of its indicators are statistically significant. In contrast, an observed variable may be removed when its weight is very close to 0. Great caution must also be paid when making a decision to omit items from a formative construct. This is because the formative construct is caused by its items, and hence changes in its items inevitably influence the meaning and value of the construct (Hair et al., 2011).

# **Analysis of Structural Model**

While testing the measurement model is mainly to evaluate relationships between constructs and their indicators, the structural model integrates factor analysis with path analysis to examine interdependent relationships among the constructs (Hair et al., 2014). The current structural model examined relationships between the following eight constructs: caring, praising, role modeling, running participation, sport self-concept as runner, perceived brand-extension fit, brand self-congruity, and purchase intention. Of these, caring, praising, and role modeling, are specified as exogenous variables, which are proposed to have positive relationships with running participation. Then, running participation is posited to have a significant direct effect on sport self-concept as runner. In turn, sport self-concept as runner and perceived brand-extension fit (which is specified as an exogenous variable) together are proposed to determine brand self-congruity. Finally, brand self-congruity is expected to promote purchase intention.

The widely-accepted goodness-of-fit indices are not applicable to the PLS–SEM because this method does not require a normal distribution. Instead, the assessment of the structural model using PLS–SEM relies on various non-parametrical tests, including path coefficient, coefficient of determination  $(R^2)$ , cross-validated redundancy  $(Q^2)$ , and effect size  $(f^2)$  (Hair et al., 2011). In this study, the quality of the structural model was first examined by path coefficients and  $R^2$  through path analysis.  $R^2$  represents the variance of an endogenous variable explained by assigned exogenous variables. It also implies the degree of the predictive accuracy of the hypothesized model. A model is regarded as

weak in predictive accuracy with an  $R^2$  lower than 0.19; moderate with an  $R^2$  around 0.33; and substantial with an  $R^2$  above 0.67 (Henseler & Chin, 2010). According to Hair et al. (2011), when an endogenous variable is explained by one or two exogenous variables, a moderate  $R^2$  is acceptable. A path coefficient represents the predicative power of an exogenous variable to explain its endogenous variable. To ensure substantial power in prediction, each path coefficient should exceed 0.20 (Lowry & Gaskin, 2014).

The cross-validated redundancy of the structural model was examined with Stone-Geisser's  $Q^2$ , which represents the extent to which the empirical data can be reconstructed with the model and PLS parameters (Geisser, 1975; Hair et al., 2011). The  $Q^2$  value was computed by the blindfolding procedure with an omission distance of 7. Specifically, the blindfolding approach is performed by omitting every  $Q^{th}$  data point from the original data. Then, PLS–SEM path model estimation was run with the partial data to predict the omitted data. Prediction errors represent the difference between the predicted data and the original ones. To ensure the reliability of the results, the process needs to be repeated for seven times. After the  $Q^{th}$  process, the  $Q^{th}$  value is obtained as the sum of squared prediction errors (Hair et al., 2011). A large  $Q^{th}$  implies a limited difference between the hypothesized model and the model with omitted data. A hypothesized path is regarded as adequately predicting the associated endogenous variable when  $Q^{th}$  is above 0 (Hair et al., 2011).

With respect to the effect size, Cohen's  $f^2$ , which represents "the change in  $R^2$  when a specific construct is eliminated from the model" (Hair et al., 2014, p. 114), was obtained. The  $f^2$  value was calculated by estimating the structural model with and

without the construct of interest. Then, the  $R^2$  difference between the two estimations is compared with an unexplained variance that is obtained when the construct of interest is included in the model. The effect size of a given endogenous variable is large when its  $f^2$  exceeds 0.35, medium when the  $f^2$  is around 0.15, and small when the  $f^2$  is 0.02 or less (Hair et al., 2014).

## **Analysis of Mediation Effect**

The testing of mediation effects involves examining whether a third variable within a causal relationship "represents the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest" (Baron & Kenny, 1986, p. 1173). In this regard, research that investigates how and why a treatment is effective in achieving an outcome is examining the mediation effect (Frazier, Tix, & Barron, 2004). The most important consideration in using SEM for mediation analysis is to assess whether or not the indirect effect (i.e., the product of the path from the predictor to the presumed mediator and the path from the mediator to the outcome variable) is statistically significant (Frazier et al., 2004). Given the error standardization problem of mediation effect, some scholars recommended the adoption of bootstrap approaches to create confidence intervals for mediation estimation (Cheung & Lau, 2008; Nevitt & Hancock, 2009; Shrout & Bolger, 2002). The bootstrap approach is a nonparametric method, which makes distributional assumption of parameter through many times random re-sampling with replacement from original data collected. In general, 5000 times of re-sampling is preferred (Cheung & Lau, 2008). Hence, the bootstrap approach is more adaptive to situations where population distribution is unknown or data do not strictly meet the assumption of normality.

Furthermore, some limitations should be notified when using a bootstrap approach. Foremost, the bootstrap approach is only applicable when the sample size is large enough. For example, Ichikawa and Konishi (1995) found that bootstrap approach overestimated standard errors when the sample is less than 150. Hillis and Bull (1993) and Nevitt and Hancock (2001) recommended an appropriate sample size of at least 200 for an effective and accurate bootstrapping. Additionally, they suggested that a large sample size can help to ensure the randomization of re-sampling. Second, since the estimated distribution of parameter depends on data, an unbiased sampling should be adopted (Cheung & Lau, 2008; Hillis & Bull, 1993). Finally, models for examination should be correctly specified because the use of bootstrapping could increase the rejection rate of a null hypothesis if the mediation effect does not exist, which may lead to an incorrect conclusion (Cheung & Lau, 2008).

In this dissertation, the mediation effect was tested following Cheung and Lau's (2008) recommendations, and the test of the hypothesized mediation models involved the application of SEM using SmartPlS 3.0. Building on the self-congruity theory and established hypotheses in CHAPTER 1, sport self-concept as runner and brand-self congruity are expected to mediate the relationship between running participation and purchase intention among the NRCSH customers. According to the proposed steps of mediation analysis (Cheung & Lau, 2008), direct effects were examined first, including the direct effect from running participation to purchase intention, the direct effect from running participation to sport self-concept as runner, the direct effect from sport self-concept as runner to brand-self congruity, and the direct effect from brand-self congruity

to purchase intention. Then, indirect effects from running participation to purchase intention were calculated based on the following pathways:

Sport participation  $\rightarrow$  Sport self concept  $\rightarrow$  Brand self congruity  $\rightarrow$  Purchase intention

The bootstrap approach can be used to create the bias-corrected confidence interval based on the sample data and then determine the significance of the indirect effects (Cheung & Lau, 2008). A 95% confidence level is preferred. If the results of the indirect effects are significant (i.e., the confidence interval excludes zero), the mediation effect can be identified.

### **Analysis of Moderation Effect**

The testing of moderation effects involves examining how a third variable alters the strength or direction of the relationship between a predictor and an outcome (Baron & Kenney, 1986). Research investigating to whom, at what time, or under what conditions an exogenous variable more effectively affects an endogenous variable examines the moderation effect (Baron & Kenny, 1986; Henseler & Fassott, 2010; Little, Preacher, Selig, & Card, 2007). Numerous scholars provided comprehensive approaches for moderation analysis using SEM (e.g., Algina & Moulder, 2001; Kenny & Judd, 1984; Little et al., 2006; Marsh, Wen, Nagengast, & Hau, 2012; Schumacker, 2002). Most approaches were built upon Kenny and Judd's (1986) initial product-indicator model. This model highlights that the relationship between an exogenous variable and an endogenous variable is no longer linear because of the appearance of a moderator. Given the fact that the moderator influences the power of the relationship, the effect of the moderator on the endogenous variable needs to be included. Then, the test of the moderation effect is conducted by creating an interaction variable, which is a product of

the exogenous variable and the moderator (Exogenous Variable × Moderator), in the structural model. The interaction variable represents a synergistic effect which is expected to be more powerful than any of the two variables alone (Wu & Zumbo, 2008).

The analysis of moderation effects was assessed following the procedures suggested by Henseler and Fassott (2010), through the application of SEM using SmartPLS 3.0. Specifically, Henseler & Fassott's approach suggests a modified way of constructing the interaction variable, where all observed variables from the exogenous variable and the moderator will be multiplied with each other. For example, if an exogenous variable has 3 observed variables and a moderator has 3 observed variables, then the interaction variable will consist of 3 × 3 interactive indicators.

Based on a comparison of four widely used approaches, Henseler and Chin (2010) found that the proposed approach is the most effective in estimating "the true parameter of an interaction effect" (p. 105) because of its least biased estimation with small sample size. This advantage meets the purpose of the current research of identifying the moderation effect of perceived brand-extension fit. Besides, Little et al.'s (2007) approach provides the most accurate prediction to the dependent variable among the four approaches (Henseler & Chin, 2010). To this end, Henseler and Fassott's (2010) approach is an appropriate method to choose. As described in the previous section, perceived brand-extension fit was proposed to be a moderator that changes the strength and direction of the effect of sport self-concept as runner on brand-self congruity among the NRC members involved. In particular, it is hypothesized that sport self-concept as runner has a greater effect on brand-self congruity when the NRC members have a high perceived brand-extension fit. Following the suggested steps of moderation analysis

(Henseler & Fassott, 2010), the direct effect from sport self-concept as runner to brand-self congruity, the direct effect from perceived brand-extension fit to brand-self congruity, and the direct effect from the product of sport self-concept and perceived brand-extension fit to brand-self congruity were examined. Of these, the interaction variable (product of sport self-concept as runner and perceived brand-extension fit) was created following the latent variable score approach (Marcoulides et al., 1998), which is to multiply factor scores of perceived brand-extension fit and sport self-concept as runner to create the interaction variable. The hypothesis of the moderation effect of perceived brand-extension fit would be supported if the direct path from the interaction variable (Sport Self-Concept as Runner × Perceived Brand-Extension Fit) to brand self-congruity is statistically significant.

#### **CHAPTER 4**

#### **RESULTS**

This chapter reports the results of the analyses designed to assess how customers' perceptions of autonomy support from the NRCSH employees promotes their running participation. The increased running participation was then proposed to increases their intentions of purchasing running shoes based on the improved sport self-concept as runner. First, the chapter provides demographic information of the respondents who completed the surveys and descriptive statistics of the survey responses. Next, the chapter reports the results of the reliability and validity of the measurement model for reflective and formative constructs separately. Then, the structural model is assessed. The chapter concludes by demonstrating the results of hypotheses developed in CHAPTER 2.

# **Demographic Information for the Respondents**

As reported in CHAPTER 3, the potential respondents of the current research included 2,677 registered customers of the NRCSH who participated in the training classes within the three months, from December 2018 to February 2019. Using convenience sampling, the questionnaire of the research was sent to each customer via the E-mail addresses provided. Six hundred and forty-four respondents participated in the first-wave data collection (T1). Constructs measured in T1 included caring, praising, role modeling, and running participation. The second-wave data collection (T2) was then conducted eight days later. In T2, 311 of the T1 respondents completed the questionnaire, resulting in the final sample of 311. The response rate was 11.6%. The demographic information of the 311 respondents provided in Table 4.1 shows that 75.2% were male; 34.3% were aged less than 30 years old, 49.7% were between 30 and 39 years old, and

16% were over 40 years old (the mean age of the respondents was 33.4 years old); 80.7% had at least an undergraduate degree; 52.4% were single and never married; 64.6% had no child; and 31.7% had an annual income less than \$100,000, 29.4% had an annual between \$100,000 and \$149,999, 14.5% had an annual income between \$150,000 and \$199,999, and 23.9% had an annual income more than \$200,000.

Table 4.1 Demographic Information for the Survey Respondents (N = 311)

Variable	Categories	N	Percentage (%)
Gender			
	Male	234	75.2
	Female	77	24.8
Age			
	Below 20 years old	7	2.1
	20–29 years old	100	32.2
	30–39 years old	154	49.7
	40–49 years old	34	10.8
	Over 50 years old	16	5.2
Highest level of e	ducation		
	Secondary or high school diploma	10	3.2
	Two-year college diploma	50	16.1
	Undergraduate degree	198	63.7
	Graduate degree or higher	53	17.0
Marital status			
	Single, not married	163	52.4
	Single, divorced/widowed	7	2.2
	Married/living with partner	134	43.2
	Other	7	2.2
Number of child			
	none	201	64.6
	only one child	96	30.8
	more than one child	14	4.6
Current employn	nent status		
	Self-employed	25	8.1
	Corporate employee	227	73.2
	Civil servant	20	6.4
	Student	15	4.7
	Other	24	7.6
Income			
	Below ¥50,000	26	8.5
	¥50,000–¥99,999	72	23.2
	¥100,000–¥149,999	92	29.4
	¥150,000–¥199,999	45	14.5
	Over ¥200,000	74	23.9
	Prefer not to say	2	0.5

In Table 4.2, the descriptive statistics of all items measured in the survey are provided, including the mean value (Mean), the standard deviation (SD), and the minimum (Min) and maximum (Max) values chosen by respondents. Of these, the two items of running participation (i.e., RUN1 and RUN2) measured the respondents' actual running behavior and hence were continuous variables. The mean value of RUN1 is 3.43 times, indicating that the respondents, on average, ran 3.43 times per week during the past three months. The mean value of RUN2 is 38.09 kilometers, which means that the respondents, on average, ran 38.09 kilometers per week during the last three months. Besides the two items, the mean values of the other scales ranged between 4.91 and 6.58, indicating that most respondents tended to provide favorable evaluations. Notably, the mean values for the items of perceived caring, praising, and role modeling were all around 6.40, indicating extremely negatively skewed distributions. In addition, the standard deviation values of the items were in the range from 0.81 to 1.61 and hence supported adequate variations in the responses. Collectively, descriptive statistics results suggested that while the data were widely distributed, some of the items had non-normal distributions, leading to the potential violation of the multivariate normality assumption for SEM models. Additionally, one of the constructs, running participation, was conceptualized as a formative construct (Sato et al., 2014). To address these concerns, this dissertation estimated the model using the PLS-SEM. Previous research shows that PLS-SEM provides robust estimations in the presence of a complex model (Hair et al., 2011; Lowry & Gaskin, 2014).

Table 4.2. Descriptive Statistics of the Items (N = 311)

Constructs/Items	Mean	SD	Min	Max
Caring				
CARE1	6.31	0.88	4	7
CARE2	6.37	0.86	4	7
CARE3	6.40	0.86	3	7
CARE4	6.39	0.94	2	7
Praising				
PRAISE1	6.58	0.93	1	7
PRAISE2	6.43	0.88	1	7
PRAISE3	6.40	0.90	1	7
PRAISE4	6.41	0.88	1	7
Role modeling				
ROLE1	6.49	0.81	4	7
ROLE2	6.36	0.91	3	7
ROLE3	6.17	1.05	3	7
ROLE4	6.39	0.99	1	7
Running participation				
RUN1	3.43	1.36	1	8
RUN2	38.09	20.45	3	80
RUN3	5.86	1.37	1	7
Sport self-concept as runner				
SELF1	4.91	1.56	1	7
SELF2	5.35	1.54	1	7
SELF3	5.5	1.47	1	7
SELF4	5.35	1.54	1	7
Perceived brand-extension fit				
FIT1	5.4	1.41	1	7
FIT2	5.39	1.34	1	7
FIT3	5.46	1.46	1	7
Brand-self congruity				
BRAND1	5.41	1.36	1	7
BRAND2	5.12	1.61	1	7
BRAND3	5.13	1.53	1	7
BRAND4	5.25	1.42	1	7
Purchase intention				
PURCHASE1	5.21	1.41	1	7
PURCHASE2	5.25	1.33	1	7
PURCHASE3	5.27	1.36	1	7
PURCHASE4	5.01	1.56	1	7

### **Results of the Measurement Model**

### **Identifying Construct Validity for Reflective Constructs**

Following the procedures of PLS-SEM suggested by Hair et al. (2014) and Lowry and Gaskin (2014), examinations of reliability and validity for the measurement model were conducted. To be specific, the reflective and formative constructs were assessed separately because of different evaluation criteria applied. A CFA was performed with the reflective constructs including caring, praising, role modeling, sport self-concept, perceived brand-extension fit, brand-self congruity, and purchase intention, for reliability and validity check. As shown in Table 4.3, the reliability of measurement items was examined by obtaining factor loadings (the values in the shadow are the factor loadings of assigned items). Each item had a factor loading over the cutoff value of 0.60 with their associated constructs, except the PRAISE4 ( $\beta = 0.54$ ). The relatively lower factor loading for PRAISE4 indicated that the item may not represent the construct appropriately. Then, to assess the validity of the items, cross-loadings of items on the other constructs were computed and compared (Hair et al., 2014). As shown in Table 4.3, the cross-loading comparisons indicated that PRAISE4 violated the rule that the factor loading of an item on its specified construct should be at least 0.10 greater than that of the item on any other constructs (Lowry & Gaskin, 2014). Thus, PRAISE4 was excluded from the model.

Table 4.4 reports the CR, AVE, and correlations of all reflective constructs based on the revised measurement model excluding PRAISE4. The CR values of the reflective constructs exceeded the recommended value of 0.70, suggesting a good reliability. The convergent validity of the constructs was well supported, with each construct providing

AVE over 0.50. The correlation matrix of the reflective constructs was calculated for testing discriminant validity. The square roots of the AVE values were reported in the diagonal values of the correlation matrix, including caring (0.85), praising (0.94), role modeling (0.90), sport self-concept as runner (0.85), perceived brand-extension fit (0.84), brand-self congruity (0.92), and purchase intention (0.87). All constructs met Fornell and Lacker's (1981) recommended criteria that a construct must share more variance with its associated measurement items than with the other constructs, indicating adequate discriminant validity.

Table 4.3. Factor Loadings and Cross-Loadings Comparison on the Reflective Constructs

Items/ Construct	Caring	Praising	Role M	Sport Self	Brand Fit	Congruity	Purchase
CARE1	0.80	-0.53	0.54	0.12	0.07	0.19	0.19
CARE1 CARE2	0.80		0.54		0.07	0.19	0.19
		-0.52		0.16			
CARE3	0.86	-0.56	0.50	0.18	0.10	0.18	0.20
CARE4	0.82	-0.58	0.53	0.19	0.10	0.29	0.19
PRAISE1	0.54	0.94	0.58	0.08	0.08	0.18	0.16
PRAISE2	0.62	0.97	0.54	0.10	0.07	0.20	0.17
PRAISE3	0.65	0.92	0.60	0.06	0.06	0.19	0.18
PRAISE4 <sup>a</sup>	0.66	0.54	0.60	0.17	0.14	0.28	0.21
ROLE1	0.57	-0.54	0.85	0.16	0.10	0.16	0.15
ROLE2	0.62	-0.63	0.91	0.16	0.11	0.20	0.17
ROLE3	0.67	-0.52	0.94	0.19	0.17	0.17	0.09
ROLE4	0.59	-0.67	0.90	0.19	0.19	0.19	0.10
SELF1	0.08	-0.11	0.12	0.81	0.48	0.24	0.23
SELF2	0.15	-0.23	0.15	0.88	0.52	0.29	0.30
SELF3	0.20	-0.29	0.23	0.82	0.54	0.33	0.29
SELF4	0.16	-0.26	0.17	0.89	0.54	0.31	0.22
FIT1	0.10	-0.15	0.11	0.55	0.82	0.25	0.22
FIT2	0.06	-0.10	0.11	0.50	0.85	0.33	0.21
FIT3	0.09	-0.12	0.14	0.54	0.89	0.25	0.17
BRAND1	0.21	-0.34	0.18	0.35	0.34	0.87	0.45
BRAND2	0.22	-0.31	0.13	0.27	0.29	0.92	0.55
BRAND3	0.27	-0.39	0.21	0.30	0.30	0.96	0.56
BRAND4	0.24	-0.39	0.17	0.33	0.32	0.93	0.52
PURCHASE1	0.12	-0.22	0.06	0.24	0.17	0.41	0.88
PURCHASE2	0.20	-0.33	0.18	0.25	0.19	0.46	0.92
PURCHASE3	0.16	-0.30	0.12	0.27	0.20	0.52	0.94
PURCHASE4	0.17	-0.21	0.09	0.28	0.22	0.56	0.72

Note. <sup>a</sup> The item was removed from the revised measurement model to improve discriminant validity. The diagonal values are the CFA results of each reflective construct

Table 4.4. Construct Reliability, Average Variance Extracted, and Discriminant Validity for Reflective Constructs

	v anuity for ixe	incenve '	Construc					
	Reflective Constructs	1	2	3	4	5	6	7
1	Caring	0.85						
2	Praising	0.58	0.93					
3	Role Modeling	0.60	0.62	0.90				
4	Sport self-concept as runner	0.18	0.11 <sup>a</sup>	0.20	0.85			
5	Brand-extension fit	$0.12^{a}$	$0.07^{a}$	0.16	0.65	0.84		
6	Brand-self congruity	0.27	0.20	0.20	0.33	0.20	0.92	
7	Purchase intention	0.19	0.18	$0.14^{a}$	0.28	0.21	0.55	0.87
	CR	0.91	0.94	0.94	0.91	0.90	0.93	0.92
	AVE	0.72	0.88	0.81	0.72	0.70	0.84	0.76

Note: Diagonal values represent the square roots of the AVE values for the constructs; <sup>a</sup> nonsignificant correlation

## **Identifying Reliability and Validity for Formative Construct**

According to Hair et al. (2014), the test of formative constructs includes the examination of significance and relevance of the construct, multi-collinearity, and convergent validity. The significance and relevance of the formative construct were tested by calculating the relative indicator weights and t-values for each measurement item under the bootstrapping routine (5,000 times resampling). According to Table 4.5, out of the three indicators forming the construct of running participation, RUN1 ("During the past three months, how many times did you run per week?") (weight = 0.54, t = 2.15, p < 0.05) and RUN2 ("During the past three months, how many kilometers did you run per week?") (weight = 0.51, t = 2.12, t < 0.05) were significant, while RUN3 ("Which

of the following statements best describes your level of running participation?") was not significant (weight = 0.11, t = 1.47, p = 0.08). This nonsignificant result for RUN3 suggests that this item may not be appropriate to form running participation in the model (Hair et al., 2014). The level of multi-collinearity was examined by obtaining the VIF value. Table 4.5 showed that the VIF value of the three items were below 5.00, which indicated that the items were different from each other and contributed to the formation of running participation (Hair et al., 2014). Because the multi-collinearity of RUN3 is low and the relative weight value contained some information for running participation, simply removing RUN3 from the formative construct may alter the meaning of the construct (Hair et al., 2014). In this regard, Hair et al. recommended retaining measurement items with nonsignificant weights if their associations with the formative construct are conceptually justified. Following the recommendation, RUN3 was retained to ensure that the meaning of the formative construct (running participation) is fully captured. To test convergent validity of the formative construct, an analysis of correlation between RUN1 and running participation was conducted. The analysis yielded a correlation coefficient of 0.68, supporting the convergent validity of running participation (Hair et al., 2014).

Table 4.5. Indicator Weights, T-Values, and VIF for Formative Constructs

Constructs/Items	Weights	<i>t</i> -values	VIF
Running participation			
RUN1	0.51	2.12*	2.69
RUN2	0.54	2.15*	2.55
RUN3	0.11	1.47	1.06

Note: \*p < 0.05.

#### **Results of the Structural Model**

After the identification of the measurement model, the established hypotheses were tested by estimating a structural model with the following constructs: caring (4 items), praising (3 items), role modeling (4 items), running participation (3 items), sport self-concept as runner (4 items), perceived brand-extension fit (3 items), brand-self congruity (4 items), and purchase intention (4 items). As indicated in the test of the measurement model, PRAISE4 was excluded as an indicator of praising for the structural model analysis due to its low factor loading.

# **Assessing the Quality of Structure Model**

Because the goodness-of-fit-indices are not applicable to models with formative constructs using PLS–SEM, some alternative approaches were adopted to assess the quality of the hypothesized model, including predictive relevance  $(Q^2)$ , coefficient of determination  $(R^2)$ , path coefficients, and effect size  $(f^2)$ ; Hair et al., 2014).

The predictive relevance was examined by using blindfolding to calculate  $Q^2$ . As explained in the section of data analysis (see CHAPTER 3), the blindfolding tests how well the data fit the hypothesized model by predicting the original data with a partial dataset in which some data points were systematically omitted (Hair et al., 2014). The  $Q^2$  value for all the endogenous latent variables were above zero (i.e., running participation = 0.02; sport self-concept as runner = 0.24; brand-self congruity = 0.12; purchase intention = 0.22), which indicates high similarities between the omitted and the predicted data. Hence, the hypothesized model adequately predicted the endogenous variables, in support of the predictive relevance for the structural model.

Table 4.7 shows the standardized path coefficients for all the hypothesized direct relationships and  $R^2$  for the endogenous constructs (Model 0). Following Hair et al.'s (2014) recommendations, the statistical significance of these coefficients was examined using a nonparametric bootstrapping routine (5,000 resamples). Overall, the  $R^2$  value of customer purchase intention was 0.34, indicating that the model explained 34% of the total variance in the purchase intention of the survey respondents. The  $R^2$  value of brandself congruity was 0.15, suggesting that the perceived brand-extension fit and sport self-concept as runner explained 15% of the total variance in the brand-self congruity. The  $R^2$  value of sport self-concept as runner was 0.35, revealing that customers' running participation explained 35% of the total variance in the sport self-concept as runner. Considering the complex of models estimated for consumer behavior research, the  $R^2$  results of 0.20 are regarded as high (Hair et al., 2011). Thus, the  $R^2$  of this study partially supported predictive accuracy, except for that of brand-self congruity ( $R^2 = 0.15$ ) which is relatively lower than 0.20.

With respect to the path coefficients, customers' perception of caring behavior from the NRCSH employees had a significant and positive association with running participation ( $\beta = 0.21, p < 0.01$ ), which supported Hypothesis 1a. However, the effect size of this path coefficient was small ( $f^2 = 0.02$ ). Conversely, customers' perception of praising was negatively connected with running participation ( $\beta = -0.20, p < 0.01$ ) and had a small effect size ( $f^2 = 0.02$ ), resulting in the rejection of Hypothesis 1b. Additionally, the relationship between the perceived role modeling and running participation was nonsignificant ( $\beta = 0.07, p = 0.54$ ), rejecting Hypothesis 1c.

Running participation was a significant predictor of sport self-concept as runner ( $\beta = 0.59, p < 0.01, f^2 = 0.53$ ), supporting Hypothesis 2. The large effect size of running participation on sport self-concept indicated that running participation is effective in predicting sport self-concept as runner. Regarding Hypothesis 3 and Hypothesis 4, the results in Table 4.6 revealed that both sport self-concept as runner ( $\beta = 0.22, p < 0.01, f^2 = 0.04$ ) and perceived brand-extension fit ( $\beta = 0.20, p < 0.01, f^2 = 0.03$ ) positively affected brand-self congruity. Hence, Hypothesis 3 and Hypothesis 4 were confirmed. However, effect size of sport self-concept as runner and perceived brand-extension fit was relatively small. Brand-self congruity had a significant effect on customers' purchase intention ( $\beta = 0.55, p < 0.01, f^2 = 0.42$ ), in support of Hypothesis 6. The large effect size supported the effectiveness of brand-self congruity in predicting purchase intention. Contrary to the prediction made for Hypothesis 8, the direct association between running participation and purchase intention was not significant ( $\beta = 0.05, p = 0.48$ ), leading to the rejection of Hypothesis 8.

### **Testing of Mediating Effect**

This study hypothesized two mediating effects: (1) brand-self congruity mediates the relationship between sport self-concept as runner and purchase intention (Hypothesis 7), and (2) sport self-concept as runner and brand-self congruity sequentially mediate the relationship between running participation and purchase intention (Hypothesis 9). The mediation analyses with a bootstrap routine (5,000 times of re-sampling) was employed to test the two mediating effects (Cheung & Lau, 2008; Hayes, 2017). As shown in Table 4.6, the total effect of running participation on purchase intention was found to be

significant ( $\beta = 0.19, p < 0.01$ ), which indicated a significant association between the two construct. As noted, the direct effect of running participation on purchase intention was found to be nonsignificant ( $\beta = 0.05$ , p = 0.48), which suggested a fully mediated relationship (Cheung & Lau, 2008b; Hayes, 2017). To further analyze the indirect effects, the total indirect effect between running participation and purchase intention was obtained. The results revealed a significant total indirect effect ( $\beta = 0.15$ , p = 0.02) with a bias-corrected 95% confidence interval (CI) excluding zero [0.02, 0.24]. With respect to the specific indirect effects, this study found that brand-self congruity positively mediated the relationship between sport self-concept as runner and purchase intention ( $\beta$  = 0.12, p = 0.02). The bias-corrected 95% CI excluded zero [0.02, 0.22] supported Hypothesis 7. Consistent with Hypothesis 9, the sequential mediating effect through sport self-concept as runner and brand-self congruity was significant ( $\beta = 0.07, p = 0.03$ ) with the bias-corrected 95% CI of the effect excluding zero [0.03, 0.13]. Collectively, sport self-concept as runner and brand-self congruity sequentially mediated the relationship between running participation and purchase intention, confirming Hypothesis 9.

Table 4.6. Bootstrap test of total and specific indirect effects

Path	ρ	Bootstrapping (95% CI)		
i atii	β	Lower 2.5%	Upper 2.5%	
Total effect				
Running participation → Purchase intention	0.19**	0.04	0.29	
Total indirect effect				
Running participation → Purchase intention	0.14*	0.02	0.24	
Specific indirect effect				
H7 Sport self-concept as runner → Brand-self congruity → Purchase intention	0.12*	0.02	0.22	
H9 Running participation → Sport self-concept as runner → Brand-self congruity → Purchase intention	0.07*	0.03	0.13	

Note:  $\beta$  = Standardized coefficient; CI = Confidence interval; \* p < 0.05; \*\* p < 0.01.

# **Testing of Moderating Effect**

Hypothesis 5 posited the moderating effect of perceived brand-extension fit on the relationship between sport self-concept as runner and brand-self congruity. In particular, it proposed that the association would be stronger when the perceived fit is high and weaker when the perceived fit is low. As shown in Table 4.7, the results indicated that the interaction variable (Perceived Brand-Extension Fit × Sport Self-Concept as Runner) had a significant positive association ( $\beta = 0.13$ , p = 0.03) with brand-self congruity. Hypothesis 5 was thus supported, indicating that the NRCSH customers who regard themselves as runners are more likely to feel a congruence with the user image of Nike when they perceive a greater fit between the NRCSH and Nike. Furthermore, the inclusion of the interaction variable to the structural model increased the  $R^2$  value of brand-self congruity by 0.02 from 0.15 to 0.17, which means that the moderator uniquely explained 2% of the total variance of brand-self congruity.

Table 4.7. Standardized Results of the Paths Coefficients and Coefficients of Determination

	Hypothesized relationships	Model 0 (without interaction)	$R_{M0}^{2}$	Model 1 (with interaction)	$R_{M1}^2$
H1a	Caring → Running Participation	0.21*		0.21*	
H1b	Praising → Running Participation	-0.17*		-0.17*	
H1c	Role Modeling → Running Participation	0.07		0.06	
H2	Running Participation → Sport Self-Concept as Runner	0.59***	0.35	0.59***	0.35
Н3	Sport Self-Concept as Runner → Brand-self congruity	0.22**		0.27**	
H4	Brand-Extension Fit → Brand-Self Congruity	0.20*		0.23*	
Н5	Brand-Extension Fit × Sport Self-Concept as Runner → Brand-Self Congruit7	_	0.15	0.13*	0.17
Н6	Brand-Self Congruity → Purchase Intention	0.55***		0.55***	
Н8	Running Participation → Purchase Intention	0.10	0.34	0.10	0.34

Note: \* p < 0.05; \*\* p < 0.01, \*\*\* p < 0.001

### **Summary of the Results**

In summary, a CFA was performed to test the measurement model of the reflective constructs based on factor loadings, cross-loadings comparison, CR, AVE, and correlations between the constructs. The initial results of this measurement model showed that PRAISE4 did not meet the recommended cutoff value for factor loadings and violated the rule of cross-loading comparisons. Hence, PRAISE4 was excluded from the model. A re-test of the revised measurement model without this item revealed that all measurement items well represented their respective constructs. The formative construct, running participation, was assessed by obtaining the relative indicator weights, *t*-values, and VIF. Although RUN3 was not significant, decision was made to remain RUN3 in the model because RUN3 is a valid content when measuring running participation, and the indicator weight showed that RUN3 may carry some information. Simply removing RUN3 may alter the meaning of running participation as a construct.

Upon the confirmation of the measurement model, the hypothesized structural model was examined using PLS–SEM based on the criteria of path coefficients,  $R^2$ ,  $Q^2$ , and  $f^2$ . The results of  $Q^2$  supported the ability of the structural model to make relevant prediction with the data collected. According to the  $R^2$  value, the structural model explained approximately 34% of the total variance in the endogenous variable, purchase intention, supporting the predictive accuracy of the model. With respect to the hypothesized paths, among the three autonomy supportive interventions used by the NRCSH employees, only their caring behavior significantly promoted the running participation of customers who participated in the training program. In turn, running participation had a direct positive association with the NRCSH customers' sport self-

concept as runner. Then, the customers' sport self-concept as runner, together with their perceived fit between the NRCGC and its parent brand (Nike), enhanced the match between their self-concept and the user image of the parent brand (brand-self congruity). Moreover, the enhanced brand-self congruity positively predicted the customers' intention to purchase the brand's products.

The result also demonstrated that running participation had no direct association with customer's purchase intention. However, promoting customers' running participation connected to their purchase intention indirectly through the enhancement of sport self-concept as runner and brand-self congruity. Furthermore, the analysis reported a significant moderating effect of perceived brand-extension fit on the relationship between sport self-concept as runner and brand-self congruity. Although the moderating effect was relatively small with a 2% increase in the total variance of brand-self congruity explained, it supported the study's prediction: the NRCSH customers who regard themselves as runners are more likely to feel congruent with the user image of Nike when they perceive a greater fit between the NRCSH and Nike.

#### **CHAPER 5**

#### **DISCUSSION**

This dissertation attempted to explore the mechanism of how a sport company may drive revenue growth by fulfilling specific needs in society and thus create shared value. More specifically, I examined how a multinational sport manufacturer drives sales of running shoes by operating free training programs to cultivate and maintain active runners. As discussed in CHAPTER 3, the company examined, Nike, creates social value by providing free training classes to the public which improves health and well-being of loyal participants (or customers) through running. For economic value, by taking advantage of its free training program, the company has established a reputation as a high-profile running brand, which would strengthen customers' brand associations when buying running-related products.

Building on the connections between the promotion of running and enhancement of customers' health and well-being as well as their purchase intentions as exhibited by Nike's case, the goals of this dissertation were to identify:

- sport employees' autonomy-supportive behaviors that encourage customers' running participation;
- the association of increased running participation with customers' purchase intention;
- 3. the mediating effect of sport self-concept and brand-self congruity on the relationship between running participation and purchase intention; and
- 4. the moderating effect of brand-extension fit on the relationship between sport self-concept and brand-self congruity.

The following sections offer detailed interpretations and discussions of the findings presented in CHAPTER 4. Then, the study's contributions and limitations, as well as directions for future research, are provided. This chapter concludes with an overall summary of the dissertation.

### **Discussion of Findings from the Main Study**

The purpose of this dissertation is to advance an understanding of how CSV can be implemented in sport. In particular, it examines how a sport manufacturer drives sales of running shoes by offering free running training program that promotes its customers' running participation. The results of the main study reported in CHAPTER 4 demonstrated that customers' perceptions of caring from the NRCSH employees during training promoted their running participation. Furthermore, this study tested both direct and indirect relationships between customers' level of running participation and their intention to purchase running-related products. The findings indicated that there was no direct association between customers' level of running participation and purchase intention. Instead, customers' level of running participation and purchase intention were indirectly connected through the mediation of sport self-concept as runner and brand-self congruity. Moreover, the association between sport self-concept as runner and brand-self congruity was stronger when customers perceived a greater fit between the NRCSH and Nike.

### **Measurement Model**

This dissertation applied PLS–SEM when testing the measurement model.

Following the procedures of PLS–SEM (Hair et al., 2014), the reliability and validity of the reflective and formative constructs were examined separately. A CFA was performed

with the seven reflective constructs, including caring, praising, role modeling, sport selfconcept as runner, perceived brand-extension fit, brand-self congruity, and purchase intention. The factor loadings, cross-loadings comparison, composite reliability, convergent validity, and discriminant validity were assessed for each reflective construct based on criteria recommended by the literature (Fornell & Lacker, 1981; Hair et al., 2014). The results indicated that all measurement scales adequately represented the constructs after excluding one item from the scale of praising. Next, the reliability and validity of the formative construct, running participation, were assessed. The criteria for the formative construct are different from those for the reflective construct (Hair et al., 2014; Henseler et al., 2015; Lowry & Gaskin, 2014). In particular, the formative construct was assessed by content validity, convergent validity, multicollinearity, and significance and relevance of each indicator. The results of the assessment of the formative construct suggested that the items used in this study were appropriate for measuring running participation. Collectively, the measurement model was adequately specified.

### **Structural Model**

This section discusses the nine hypotheses established in CHAPTER 1 based on the results of the hypothesis testing reported in CHAPTER 4. The results showed that the NRCSH customers' perceptions of caring was the only significant autonomy supportive intervention that promoted running participation. Hence, Hypothesis 1a was supported, while Hypotheses 1b and 1c were rejected. The customers' running participation was then found to enhance their sport self-concept as runner, which confirmed Hypothesis 2. The sport self-concept as runner, together with their perceived fit between the NRCGC

and its parent brand, Nike, positively linked with the customers' brand-self congruity, which in turn predicted their purchase intention. These results supported Hypotheses 3, 4, and 6. The significance of these association then indicated a mediating effect of brand-self congruity on the relationship between sport self-concept as runner and purchase intention, in support of Hypothesis 7. In addition, the moderating effect of perceived brand-extension fit on the relationship between sport self-concept as runner and brand-self congruity was significant, supporting Hypothesis 5. With respect to Hypothesis 8 and 9, running participation was expected to have connections with purchase intention. The results revealed a nonsignificant direct relationship between running participation and purchase intention, and thus rejected Hypothesis 8; however, sport self-concept as runner and brand-self congruity sequentially mediated the relationship between running participation and purchase intention, supporting Hypothesis 9. Below, each hypothesis is discussed in detail.

## **Hypotheses Testing**

Hypotheses 1a-1c. Drawing from research on autonomy supportive coaching behavior (Amorose & Anderson-Butcher, 2007; Coatsworth & Conroy, 2009) and the pilot qualitative study, this dissertation proposed three major categories of autonomy supportive behavior including (1) caring, (2) praising, and (3) role modeling. These categories of behavior were adopted by the NRCSH employees to promote their customers' running participation.

Foremost, caring was identified as a positive significant behavioral intervention to promote running participation according to the data of the NRCSH customers, which supported Hypothesis 1a. This positive relationship implies that if customers perceive

friendliness, warmth, and affection from the NRCSH employees (who are the trainers) during training classes, they are likely to participate in the training classes persistently and even continue running several times in a week. The finding is consistent with the proposition of self-determination theory indicating that the satisfaction of relatedness, which entails the feeling of being connected and cared by others, contributes to the autonomous motivation for actions (Annerstedt & Lindgren, 2014; Coatsworth & Conroy, 2009; Deci & Ryan, 2000).

Hypothesis 1b proposed a positive relationship between the perception of praising and running participation. The result of the main study, however, indicated a significant negative correlation and hence rejected Hypothesis 1b. The direct interpretation of this finding is that when customers more frequently receive praise from the NRCSH employees during training, they are less likely to participate in running. This negative relationship is somewhat surprising because previous research constantly found a positive relationship between autonomy-supportive coaching behaviors and sport participation (Coatsworth & Conroy, 2009; Luiselli, Woods, & Reed, 2011). The behavioral science literature shows that the relationship between reinforcement such as praising and rewarding and the frequency of a given behavior is complex (Cameron, Banko, Pierce, 2001; Deci & Ryan, 2000; Eisenberger & Camerson, 1996; Schwartz, 1990). The reinforcement toward the behavior can be categorized into three types: completiondependent, quality-dependent, and performance-independent (Eisenberger & Camerson, 1996). While the first two types of rewards or praise are offered based on the specific behavior performed, the performance-independent reinforcement is given by participation. When people find that the praising they received has no relation with their

performance, the perceived praising or rewarding will no longer be a reinforcement which makes "people engage in the activity even less than they did before" (Schwartz, 1990, p. 10). Schwartz's finding may explain the negative association between praising and running participation in the current study. The NRCSH customers did not perceive praising from the NRCSH coaches and pacers as a reinforcement of running participation because the coaches and pacers praise the customers as long as they participate in training sessions which represents the type of performance-independent reinforcement. In this regard, simply praising the customers when they finish each task may make them feel that the employees are just doing what are required by the program rather than expressing genuine care about their performance. As a result, the more praise the customers perceive, the less motivation they will develop toward running participation because the praise has no relation with their performance in training.

Another explanation to the negative relationship may be due to the difference of age groups. The past studies focused on the effect of autonomy-supportive coaching behaviors on sport participation among young people (from 7 to 20 years old) and athletes (Coatsworth & Conroy, 2009; Luiselli, Woods, & Reed, 2011), whereas the respondents of the current research were mostly adults (the mean age of the sample was 33.4 years old) who participate in the running program for leisure. To be specific, although the NRCSH employees are responsible for training their customers, they do not assume the roles of physical education teachers or athletic team coaches. There are no hierarchical relations between the NRCSH employees and their customers. In this regard, some customers may not have the needs to attract the employees' attention, making their praising behavior ineffective.

Inconsistent with Hypothesis 1c, the perceived role modeling did not have a significant relationship with customers' running participation. The nonsignificant relationship between role modeling and running participation reveals that customers' perception of the NRCSH employees as role models does not change their level of participation. This nonsignificant finding may suggest that unlike young and older adults whose sport participation can be influenced by role models (Dorgo, King, & Brickey, 2009; Vescio et al., 2005), adults in their 30s and 40s are less likely to perceive a strong connection with a role model. In the current case, the customers are adults who already started running with the program, and hence the influence of other interactive change interventions such as instruction and caring may be more effective for encouraging further participation than role modeling. Additionally, the demographics of the respondents, including age (i.e., the mean age is 33.4 years old), employment (i.e., most of them were corporate employees), and frequency (i.e., 3.4 times per week) and mileage (i.e., 38.09 kilometers per week) of running, meet the categorization of leisure runners (Iranshao, 2016). In this regard, most customers may participate in the NRCSH program for leisure and wellness and hence lack motivation to perform at the superior level exhibited by the NRCSH employees.

Hypothesis 2. The result of the analysis showed that running participation enhances the NRCSH customers' sport self-concept as runner, in support of Hypothesis 2. This finding is consistent with the literature positing that when one's sport performance is supported by the environment, his or her sport self-concept is likely to be determined based on the level of participation (Marsh et al., 2007; Perrier et al., 2012). While previous studies identified the positive effect of sport participation on sport self-

concept in general (Alfermann & Stoll, 2000; Martín-Albo et al., 2012), this research examined the connection by focusing on a specific sport, running. The significance of this finding will be discussed next, together with that of findings related to the other hypotheses.

Hypothesis 3. The study found that sport self-concept as runner had a positive association with brand-self congruity, supporting Hypothesis 3. This means that customers are likely to see a match between their self-concept and the user image of a running brand if they strongly express their self-concept in terms of their skills and achievements in running. This significant relationship, together with the positive link between running participation and sport self-concept as runner, made an important contribution that the improvement of customers' brand-self congruity can be achieved by influencing customers' self-concept. Although previous studies on consumer behavior have identified brand-self congruity as an effective predictor for loyalty and purchase intention (Hang, 2002; Hosany & Martin, 2012; Kwak & Kang, 2009; Roy & Rabbanee, 2015), these studies focused on strategies that change or promote a company's user image to meet customers' self-concept. In contrast, research on promoting brand-self congruity by influencing customers' self-concept is relatively sparse because of the complexity of one's perception self (Sirgy et al., 2000). Given the significant associations between running participation, sport self-concept as runner, and brand-self congruity, the current study provided evidence that brand-self congruity can be enhanced by influencing their self-concept in sport settings.

*Hypothesis 4.* Consistent with Hypothesis 4, the results indicated that perceived brand-extension fit was positively associated with brand-self congruity. This finding

demonstrates that if the NRCSH customers perceive a high fit between the NRCSH and its parent brand, Nike, the perceived match between their self-concept as runner and the user image of Nike will increase. To this end, the high brand-extension fit increases the overlap of the user image between the NRCSH and Nike, which contributes to customers' brand-self congruity with the parent brand. The finding is consistent with the literature positing the reciprocal effect of a brand extension on its parent brand through the perceived brand-extension fit (Dwivedi et al., 2010; Milberg & Sinn, 2008; Salinas & Pérez, 2009). While previous research identified the reciprocal effect in general, the current study examined the effect within a specific sport context. Because sport is a powerful factor in forming people's self-concept (Marsh et al., 2007), using sport-related extension may dilute people's association with the parent brand. As a result, customers may only be attracted by sport, but their association with and evaluation toward the parent brand may not change, especially when the parent brand has no connection with sport (Walsh et al., 2012). Walsh et al.'s (2012) finding then led to the proposition that sport-related brand extensions such as sport teams and training programs may improve customers' association with a sport parent brand such as sport manufacturers. The current study provides empirical evidence to support this proposition.

Hypothesis 5. In addition to the direct effect, Hypothesis 5 predicted the moderating effect of perceived brand-extension fit on the relationship between sport self-concept as runner and brand-self congruity. The current results supported the hypothesis, indicating that when customers' perception of the fit between the NRCGC and its parent brand, Nike, is high, those with higher sport self-concept as runner are more likely to feel that the user image of Nike is congruence with their self-concept (i.e., brand-self

congruity). In contrast, as the perception of fit decreases, the connection between sport self-concept as runner and brand-self congruity may become weaker. This finding is consistent with previous research indicating that the perceived brand-extension fit moderates the relationship between customers' extension exposure to and evaluation of the parent brand (Broniarczyk & Alba, 1994; Swaminathan et al., 2001). Thus, the result suggests that the strategy of brand extension may be appropriate for sport companies to design and implement CSV. More importantly, in order for sport companies to connect social outcomes with economic growth, their brand extension should be designed by connecting with the organizations' core businesses.

Hypothesis 6. The results supported Hypothesis 6 by showing a significant positive association between brand-self congruity and purchase intention. This suggests that customers who perceive a higher match between their sport self-concept as runner and the user image of Nike are more likely to buy Nike's products. This finding is consistent with previous research on self-congruity that increasing congruence between customers' self-concept and brand user image can improve customers' perception of the self (Hang, 2002; Hosany & Martin, 2012; Kwak & Kang, 2009). From the perspective of symbolic purchase, customers are motivated to buy products of a certain brand that enhances their self-concept. This study identified a direct relationship between brand-self congruity and purchase intention, and thus added to the literature that brand-self congruity and behavioral intention are indirectly connected by self-perception or self enhancement (Aguirre-Rodriguez et al., 2012; Liu et al., 2012; Roy & Rabbanee, 2015).

*Hypothesis 7.* Hypothesis 7 posited that brand-self congruity has a mediating effect between sport self-concept as runner and purchase intention. This study provided

evidence that customers' sport self-concept as runner has a positive indirect effect on intention to buy Nike's running shoes through brand-self congruity. This finding also supports the literature on symbolic purchase that customers intend to buy products that address their recognition of self (Aaker & Keller, 1991).

Hypothesis 8. Contrary to Hypothesis 8, this study did not find the direct relationship between running participation and intention of purchasing sport-related products. Although sport consumer studies suggested a direct connection between one's decision to spend money on sport-related products such as sport shoes and jerseys and level of sport participation (Scheerder et al., 2011; Wicker et al., 2010), this direct relationship is weak and depends on other socioeconomic variables such as income, marital status, and education level. Moreover, previous studies focused on sport consumption in general (Scheerder et al., 2011; Wicker et al., 2010), while the current study examined customers' purchase intention toward a specific sport brand. According to research on branding, customers' preference to a certain brand largely depends on their brand association and past consumption experience (Aaker, 1996; Malär et al., 2011). Because of these variances, it is understandable that the direct association between running participation and intention of purchasing a specific brand does not apply to all individuals in general; rather, the association may be established by taking the contextual factors discussed into account.

*Hypothesis* **9.** Consistent with Hypothesis 9, this study found the mediating effect of sport self-concept as runner and brand-self congruity on the relationship between running participation and purchase intention. The result of the mediation analysis indicated that sport self-concept as runner and brand-self congruity fully mediated the

relationship between running participation and purchase intention. It implies that symbolic needs serve as a more powerful motivation than functional needs in promoting consumption in sport, especially when the purchase is directed to a specific brand (Roy & Rabbanee, 2015). That is, the NRCSH customers' decisions of buying Nike's running shoes may be motivated by the expectation of expressing themselves as runners. The result also implies the possibility for sport companies to achieve economic outcomes (e.g., enhancing customers' purchase intention) by optimizing social benefit such as promoting running participation for health outcomes and well-being. In particular, a sport company can design programs, promoting customers' sport participation that aims to enhance their self-concept in terms of the specific sport. This should, in turn, enhance the consistency between customers' sport self-concept and the user image of the company, subsequently increasing their intention of purchasing the company's products.

## **Implications of the Dissertation**

## **Theoretical Implication**

This dissertation attempted to advance the field's understanding of CSV by exploring and testing a mechanism of how a sport organization improves its business conditions by benefiting society simultaneously. Sport management scholars suggested that sport can be a vehicle to improve the health and well-being outcomes of the public (Hills et al., 2018; Walker & Hills, 2017); however, how promoting health and well-being through sport contributes to economic outcomes for sport organizations, such as revenue growth, has not yet been empirically established. This dissertation thus presented a case illustrating how sport companies may connect the production of economic value

with social value creation and empirically supported a theoretical framework developed based on this case.

In the case of the NRCSH, Nike creates social value by launching a brand extension that offers free running services to the public and creates health outcomes for residents in Shanghai. In the meantime, Nike expects an increase in the sales of running shoes, with the growing number of runners brought by the NRCGC in the long run. More importantly, the case reflects that CSV, which incorporates social goals into business operations (Porter & Kramer, 2011), may be more effective in value creation than a social or business activity alone. By associating social goals with business opportunities, companies can sustain their involvement in a social agenda as long as there is a potential for profitability. The findings support the propositions by showing that the customers' engagement in running enhances the formation of sport self-concept as runners, which significantly predicts their intention of buying Nike's running shoes through their perceived brand–self congruity. Notably, the results reveal that there is no direct relation between running participation and purchase intention, implying that sport self-concept as runner and brand-self congruity must be present to establish this relationship and thus support the significance of self-congruity in consumption (Sirgy, 1982; Hosany & Martin, 2012).

Second, the main study aimed to identify and examine the connection between customers' perceptions of autonomy-supportive intervention and their running participation in a specific sport program, the NRCSH. The results partially confirmed the hypotheses, indicating that while perceived caring positively connected with the customers' running participation, perceived praising has a negative link with the running

participation and perceived role modeling has no association. Although the literature exists to support that children and athletes are promoted to sport participation by perceiving autonomy-supportive behaviors from coaches, parents, and teachers (e.g., Amorose & Anderson-Butcher, 2007; Coatsworth & Conroy, 2009; Ryan et al., 2009), there lacks an understanding of whether autonomy-supportive interventions may influence adults who participate in sport for leisure and health outcomes. This dissertation filled this gap by testing the effect of autonomy-supportive behaviors on sport participation. The result shows that, for customers of the NRCSH, the perception of caring formed by friendly behaviors of the NRCSH's employees (i.e., trainers) promotes the customers' running participation, while praising customers' sport performance and serving as role models in training do not. This finding implies that compared to factors of sport participation, social interventions such as positive social interaction and inclusion represent better predictors for adults' sport participation.

Third, the findings of the main study confirmed the positive relation between sport participation and sport self-concept (Marsh et al., 2007) by showing that the NRCSH customers' running participation positively relates to their sport self-concept as runner. Previous studies concentrated on how an individual's sport participation and sport self-concept were mutually influenced, which led to the advanced sport performance of athletes and adolescents (Hagger et al., 2003; Marsh et al., 2007; Perrier et al., 2012). Meanwhile, the current study is different from the extant literature in that it explored the business potential of promoting people's sport self-concept through their sport participation. In particular, this study presented the significant role of sport self-concept

as runner and brand-self congruity in predicting customers' intention of purchasingrunning-related products.

Forth, this dissertation adds to the consumer behavior literature by demonstrating that companies can drive sales not only through promoting customers' perceptions of the congruence with their existing self-concept but also through changing their existing self-concept to be more closely aligned with the user image of the companies' brands.

Although the literature on consumer behavior highlights the effect of brand-self congruity on customers' decision of purchase, this line of research focuses on understanding the existing self-concept of customers and then identifying changes that can be made by companies to achieve the congruence between customers' self-concept and user image of a brand or brand image in general (Liu et al., 2012; Rabbanee & Roy, 2015; Sirgy et al., 2008). Evidence provided in this dissertation showed that customers' self-concept has a positive association with sport participation. Hence, brand-self congruity can be achieved by influencing customers.

Finally, the dissertation contributed to the sport marketing literature by confirming the proposition that a sport-related brand extension enhances customers' association with its parent brand when the parent brand has a strong connection with sport (Walsh et al., 2012, 2015). The case presented in this dissertation showed how Nike has expanded its market by launching the NRCSH as a brand extension that serves to cultivate and maintain runners (who are potential buyers). The significant moderating effect of perceived brand-extension fit on the relationship between the sport self-concept as runner and brand-self congruity implies that the customers may regard the user image

of Nike as matching their self-concept when they perceive a high fit between the NRCSH and Nike.

# **Practical Implication**

The significant relationship between running participation, sport self-concept as runner, and brand-self congruity suggested that the improvement of customers' brand-self congruity can be achieved by influencing customers' self-concept. Previous studies on consumer behavior have identified brand-self congruity as an effective predictor for loyalty and purchase intention (Hang, 2002; Hosany & Martin, 2012; Kwak & Kang, 2009; Roy & Rabbanee, 2015), these studies, however, focused on strategies that change or promote a company's user image to meet customers' self-concept. The current study provided evidence that brand-self congruity can be enhanced by influencing their selfconcept in sport settings. This finding may provide an important insight on how a sport company can implement CSV. That is, to promote customers' perception of match between their self-concept and user image of the sport company, programs designed for addressing specific social issues should first direct customers' behaviors that are consistent with the user image of the company. This behavioral change then may influence customers' self-concept (such as promoting sport participation to enhance sport self-concept), which leads to brand-self congruity.

The significant mediating effect of sport self-concept as runner and brand-self congruity on the relationship between running participation and purchase intention indicted that the NRCSH customers' decisions of buying Nike's running shoes may be motivated by the expectation of expressing themselves as runners. The significant mediating effect provides an insight into the strategic design of social programs that

promote sport participation for health. To be specific, to address business outcomes such as increasing sales of products, the delivery of social programs through sport needs to be carefully examined and designed to closely connect with sport organizations' image or core business.

The case presented in the dissertation provides a practical implication for sport companies to implement CSV in business. Although the case relates to a sport manufacturer, its focus on the mutual benefits of promoting running participation and expanding the core business market suggests an alternative approach of sustainable development for professional sport organizations such as Major League Soccer (MLS). MLS, as an emerging professional sports league in the United States, has struggled to increase game attendance because of the relatively low public attention compared to other major league sports such as the NFL and National Basketball Association (Sung & Mills, 2018). The situation of MLS is similar to the case presented in this study. In this regard, the current study may suggest that MLS franchises drive attendance by spreading knowledge of soccer and promoting soccer-related activities at the grassroots level. Following Nike's strategies, the franchises can provide a free soccer training program to children at all levels. Differing from the MLS youth soccer academies which focus on selecting and cultivating future elite players, such a program would be less competitive and aim to promote enjoyment and wellness by cultivating children's habits in soccer. The new program would be more inclusive, with no evaluation required for admission to the program. To obtain loyal participants, MLS franchises could periodically assign their players to coach and interact with the children. The soccer training not only contributes to children's health development through sport but also influences their sports preferences.

Children's involvement in soccer may then drive their parents' decision to attend soccer games to support their children's habits and sport development (Green & Chalip, 1998). In the long run, children who participate in the program may engage in soccer more deeply and become devoted fans of the sport and league.

### **Limitations of the Dissertation**

In addition to the contributions discussed above, this dissertation has several limitations. First, the study sample of this dissertation was conveniently collected from a specific CSV program. Although the findings can explain the mechanism of CSV in sport in the context of the NRCSH, the generalizability of the findings to other contexts is limited.

Second, this dissertation examined the theoretical framework by applying a two-wave data collection. Constructs of caring, praising, role modeling, and running participation were measured at Time 1, and the other constructs including sport self-concept as runner, brand-extension fit, brand-self congruity, and purchase intention were measured at Time 2. There was an eight-day interval between the two waves. Although the application of the time-lagged design reflected a causal change between running participation and sport self-concept as runner, the eight-day interval would not be substantial to reveal the exact changes before and after the participation in the NRCSH. As shown in previous research, physical and psychological changes associated with sport participation require people's constant engagement for at least three months (Kinnafick et al., 2014; Marsh et al., 2006). An examination of the exact change is crucial because it can demonstrate the extent to which the NRCSH is effective in promoting running and

offer insights into the causal change between running participation and sport self-concept as runner.

Third, this study used PLS–SEM for data analysis. PLS–SEM presents many advantages for research on consumer behavior and is increasingly accepted by marketing scholars (Hair et al., 2014). In particular, PLS–SEM can enhance the statistical power of a model to explain the variance of its endogenous variables. However, its inability to examine the overall model fit weakens the utility of PLS–SEM in testing how well data fit a theoretical model.

Fourth, the identification of running participation as an adequate construct needs further improvement. Although the items selected for running participation were supported by the previous research (Funk et al., 2011; Sato et al., 2014), the construct reliability was insufficient in the current study. Although the three items were retained for further analysis, the third item (RUN3) had a nonsignificant coefficient with running participation. This non-significance may be caused by the fact that RUN3 measured the respondents' perceptions of their running participation while RUN1 and RUN2 measured the actual frequencies and intensity of running participation. In order to increase the predictive power and the reliability of the theoretical framework, the items for running participation needs to be reconsidered.

Fifth, the dissertation captured the motivational interventions for customers' running participation from employees' perspective only. The literature on sport participation, however, suggests the existence of additional factors, such as social capital and social cohesion, that may also motivate customers' participation in running (Brown & Fry, 2014; Zhou & Kaplanidou, 2018). This study's failure to find the positive effects

of praising and role modeling on running participation, as well as the limited variance of running participation explained by the study, indicates the existence of such other factors.

Finally, this dissertation indirectly measured the outcomes of CSV. Specifically, the social outcome (i.e., health benefits) was represented by running participation, while the economic outcome (i.e., actual purchase behavior) was measured by customers' purchase intention. Substantial literature supports a close connection between sport participation and improvement in health (Oja et al., 2011; Powell, Paluch, & Blair, 2011; Warburton et al., 2006), as well as between customer purchase intention and increases in revenue (De Cannière, De Pelsmacker, & Geuens, 2010; Ishii, Matsumoto, & Miki, 2012; Sun & Morwitz, 2010). However, the indirect measures cannot fully capture the objective outcomes. For example, a respondent may indicate an intention to buy new running shoes when answering the questionnaire, but his or her intention may change overtime or some contextual factors, such as the availability of discretionary incomes, may influence his or her actual behavior.

#### **Directions for Future Research**

Although the sport industry's adoption of CSV is still in its infancy, both scholars and practitioners have displayed an increasing interest in exploring the feasibility of CSV in sport settings. For example, the strategies adopted by the NFL to expand its global market and increase the popularity in the United Kingdom can be regarded as CSV (Hills et al., 2019; Walker & Hills, 2017). By cooperating with local schools and cultivating children's interest in playing football, the NFL created a new fan base among the young generation, which may expand the NFL's viewership and simultaneously improve children's health conditions through participation in the sport (Hills et al., 2019). In

relation to this example, future research is encouraged to investigate what constitutes shared value for sport organizations as well how the achievement of their shared value can be assessed. Additionally, more research is necessary to test the framework in NRC programs of other countries such as Japan and the United States, as well in other sport contexts, such as the NFL.

Second, as stated above, due to the use of convenient sampling in a specific context, the findings of this dissertation cannot be generalized to other populations or contexts. Because the purpose of the dissertation is to explore a mechanism of implementing CSV in sport, the weak generalizability is justifiable. To enhance the theoretical contribution of this research, future research is necessary to increase the generalizability of the framework by testing it in other sport contexts.

Third, with respect to the negative association between praising and running participation, further investigation may be conducted to identify the exact cause of the negative association. Although the theory of verbal praising provided an explanation (performance-independent praising; Eisenberger & Camerson, 1996), it has not been tested among adults. For example, an experiment can be conducted with three randomized groups. The first group will be praised based on the quality of assigned behaviors, the second group will be praised by performing assigned behaviors, and the last group will receive no praise by their performance. Inter-comparisons of changes before and after the treatments may show the effect of praising on running participation among adults.

Forth, the results indicated that the exogenous variables explained relatively small portions of the variance of the endogenous variables (e.g., sport self-concept as runner,

purchase intention). Future research may explore other factors that explain customers' sport self-concept as runner and purchase intention. For instance, a qualitative research can be conducted with customers of the NRCSH based on the findings of this dissertation to identify what motivates their participation in the NRCSH and running, as well as their purchasing of Nike's products.

Fifth, the identified connection between running participation and purchase intention through the mediations of sport self-concept as runner and brand-self congruity implied the possibility of promoting customers' perceived fit with corporate user images by influencing the customers' self-concept. Future research can expand this finding by investigating whether customers' self-concept can be changed to meet the corporate user image in other settings, such as luxury branding, tourism, and fitness clubs. Meanwhile, an experiment that integrates pre- and post-assessment of running participation and sport self-concept as runner may provide strong support for the effectiveness of the program in achieving its intended goals of CSV.

Sixth, this study measured respondents' level of running participation with both objective (i.e., frequencies and intensities) and subjective (i.e., perceived level of active) items. The analysis, however, indicated variations between an individuals' actual and perceived level of running participation, which weakened its construct reliability. For example, while a beginner may feel active by running three times and 6 kilometers a week, this level of participation may be regarded as inactive from an advanced runner's perspective. One possible way to increase the construct reliability of running participation is to identify and unify the types of items that measure running participation.

Finally, this dissertation used a time-lagged two wave design when collecting data. Although the two-wave data collection can reflect a causal relationship between running participation and the enhancement of sport self-concept as runner to some extent, the analysis may not be robust in the context of sport. The findings indicated that NRCSH customers can be motivated to participate in running, which strengthens their sport self-concept as runner. It is, however, unclear whether customers maintain their participation in running in the long run. According to previous research on physical activity, health benefits through sport participation can be only achieved by regular and long-term participation (Powell et al., 2011; Sallis et al., 1997; Silva et al., 2011). Therefore, it is desirable that future research will conduct a longitudinal investigation and examine behavioral changes overtime.

### Conclusion

Existing literature has posited close connections between sport participation, health benefits, and sport consumption (e.g., Casper et al., 2007; Kwon et al., 2007; Wicker et al., 2010). Although these proposed connections imply the possibility for sport organizations to create shared value by encouraging sport participation, there lacked empirical research explicitly examining CSV in sport. To fill the gap, this dissertation explored a mechanism of how sport organizations may create social and economic values simultaneously by promoting sport participation. The results suggested that customers were attracted to participate in the NRCSH and running because of their perceptions that the NRCSH employees care about them during training. Moreover, data demonstrated that the relationship between levels of running participation and intention of purchasing Nike's running shoes is sequentially mediated by sport self-concept as runner and brand-

self congruity. It is hoped that the findings contribute to the development of future research that can further the understanding of how sport organizations' socially responsible behavior may improve their bottom line while positively impacting society.

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