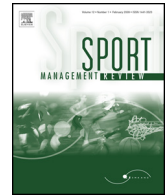




ELSEVIER

Contents lists available at ScienceDirect

## Sport Management Review

journal homepage: [www.elsevier.com/locate/smr](http://www.elsevier.com/locate/smr)

Full Length Article

## Examining the antecedents of sport team brand equity: A dual-identification perspective

Michael Chih-Hung Wang<sup>a</sup>, Ya-Yun Tang<sup>b,\*</sup><sup>a</sup> Department of Business Administration, Feng Chia University, Taiwan<sup>b</sup> Department of Recreation Management, Shih Chien University, Kaohsiung Campus, Taiwan

## ARTICLE INFO

## Article history:

Received 27 November 2016

Received in revised form 11 July 2017

Accepted 14 July 2017

Available online xxx

## Keywords:

Dual-identification model

Identification with sport team

Identification with sport team brand

Sport team brand equity

## ABSTRACT

Although the practice of building brand equity in the context of professional sport teams is popular, the formation of sport team brand equity in the sport marketing literature is still relatively unknown and incompletely understood. In this study, the authors propose a dual-identification model to examine the formation of sport team brand equity in an Asia-based professional team sport setting. Baseball fans ( $N = 548$ ) of the Chinese Professional Baseball League (CPBL) in Taiwan participated in the self-administered survey. A Partial Least Squares Structural Equation Model analysis revealed that marketplace characteristics (including group experience, salient experience, team history, and fan rituals) and brand-identified-related factors (including self-congruity and team brand prestige) were significantly related to identification with sport team and identification with sport team brand, respectively. In turn, both identification with sport team and identification with sport team brand were significant predictors of sport team brand equity. These findings highlight the importance of studying a dual-identification model in order to understand how sport team brand equity forms and suggest implications for sport team managers.

© 2017 Sport Management Association of Australia and New Zealand. Published by Elsevier Ltd. All rights reserved.

## 1. Introduction

Sport – an important type of hedonic service industry (Hightower, Brady, & Baker, 2002) – has become increasingly commercialized and lucrative (Sainam, Balasubramanian & Bayus, 2010) around the world. In the Western context, for instance, football teams attract many fans who attend matches as their major leisure activity (Biscaia et al., 2016; Theodorakis et al., 2013). With the flourishing of sport competitions (Sainam et al., 2010), the success of a sport team not only requires fan support but also branding as champions (Stokburger-Sauer & Teichmann, 2014). To some extent, developing and managing brand equity is especially crucial for professional sport teams (Biscaia et al., 2016). Several European professional football teams have done a good job in regard to this strategy. For example, the English soccer club Manchester United was recently ranked the sport's number one brand with a value of US\$1.21 billion (Brand Finance, 2015).

Although the practice of building brand equity in the professional sport team context is not new, initial scholars in the sport marketing literature with regard to the creation of brand equity focus on providing an initial understanding of how a team's brand equity can be conceptually built (Gladden & Milne, 1999; Gladden et al., 1998; Ross, 2006) or can be measured (Bauer, Sauer, & Schmitt, 2005; Biscaia, Correia, Ross, Rosado, & Maroco, 2013; Biscaia et al., 2016; Ross et al., 2008; Ross,

\* Corresponding author at: 200 University Rd., Neimen Dist., Kaohsiung City, 845, Taiwan.

E-mail addresses: [chihhwang@fcu.edu.tw](mailto:chihhwang@fcu.edu.tw) (M.C.-H. Wang), [yytang@mail.kh.usc.edu.tw](mailto:yytang@mail.kh.usc.edu.tw), [joanna0626@gmail.com](mailto:joanna0626@gmail.com) (Y.-Y. Tang).

<http://dx.doi.org/10.1016/j.smr.2017.07.010>

1441-3523/© 2017 Sport Management Association of Australia and New Zealand. Published by Elsevier Ltd. All rights reserved.

2006). Many researchers have depended on social identity–based identification (Boyle & Magnusson, 2007; Stokburger-Sauer & Teichmann, 2014; Underwood, Bond, & Baer, 2001; Watkins, 2014; Wear et al., 2016) to investigate the effects of single, specific targets of identification on sport teams' brands or brand equity in a variety of sport contexts. However, these researchers have separately, rather than simultaneously, considered how different targets of identification contribute to sport team brand equity in the professional sport context. Given that sport fans can develop their identification with multiple targets (Ashforth & Johnson, 2001), they not only identify with the sport team itself (e.g., Gwinner & Swanson, 2003; Katz & Heere, 2016) but also increasingly tend to perceive team brands as potential identification targets (Stokburger-Sauer & Teichmann, 2014). Accordingly, it is important for sport team managers to know that these two targets of identification from unique sport fans can exist concurrently when creating sport team brand equity.

In addition, sport team brand equity researchers have focused on the Western sport market, both in Europe (Bauer et al., 2005; Biscaia et al., 2013; Biscaia et al., 2016; Stokburger-Sauer & Teichmann, 2014) and the United States (Boyle & Magnusson, 2007; Gladden & Milne, 1999; Gladden et al., 1998; Ross et al., 2008; Ross, 2006; Watkins, 2014; Wear et al., 2016). The scant consideration of the Asian professional sport context provides an opportunity for greater understanding of the formation of sport team brand equity beyond the Western sport market. More specifically, unlike the majority of professional sport team brands in the Western market which carry the name of the city where they are located, like Manchester United and the New York Yankees, professional sport team brands in the Asia–Pacific region include the name of the companies that own them (Walsh, Hwang, Lim, & Pedersen, 2015). Examples are the Uni-President 7-Eleven Lions, the Samsung Lions, and the Yomiuri Giants in the Taiwan, Korea, and Japan professional baseball leagues, respectively. While lessons from the fans of successful sport teams indicate they have identified with their favorite team and team brand (Stokburger-Sauer & Teichmann, 2014), it is possible that sport fans in this context are likely to distinguish between identification with the sport team itself (affective perspective) and the sport team's brand (cognitive perspective; Swanson & Kent, 2015). What has yet to be examined is the role of these two distinguished identifications in exerting independent and equivalent impacts that bridge the relevant antecedents on the formation of sport team brand equity especially in one of the Asia-based professional sport context.

In this study, we contribute to the extant sport marketing literature by integrating previous theoretical frameworks: the social identity–brand equity (SIBE) model (Underwood et al., 2001) and the customer–company brand identification theory (Bhattacharya & Sen, 2003)—to provide further understanding of how identification with the sport team and identification with the sport team brand contribute to the formation of sport team brand equity. Specifically, our proposed dual-identification model addresses two routes to sport team brand equity: (a) how the sport marketplace characteristics via identification with the sport team lead to sport team brand equity; and (b) how brand identity-related factors strengthen identification with the sport team brand and lead to sport team brand equity as well.

## 2. Theoretical background and hypotheses development

### 2.1. Brand equity in the team sport setting

According to Keller (1993, 2003), customer-based brand equity refers to the differential effect that brand knowledge (including brand awareness and brand image) has on consumer response to the marketing of that brand. This knowledge is useful for helping sport team managers understand how to influence their fans and the mental association toward their brands (Biscaia et al., 2016). In the sport setting, brand equity refers to the value that fans attach to their favorite team's name and symbol (Gladden & Milne, 1999). For sport teams, much of this value is inherent in the experiences related to certain activities, such as attending games and supporting the team (Watkins, 2014). In line with Watkins (2014), we define sport team brand equity as the value of the brand in the mind of the consumer.

Gladden et al. (1998) and Gladden and Milne (1999) proposed that sport team brand equity is commonly associated with a team, a university, and market-related factors, such as the acquisition of assets and the enhancement of customer relationships in either the college or professional sport setting. Several researchers have developed multidimensional scales to measure brand equity in relation to sport organizations in a variety of sport settings (Biscaia et al., 2013; Biscaia et al., 2016; Ross et al., 2008; Ross, 2006). For instance, based on Keller's (1993) customer-based brand equity model, Bauer et al. (2005) developed a consumer-based brand equity scale (BETS) in the professional team sport industry. Ross (2006) and Ross et al. (2008) developed, and Biscaia et al. (2013, 2016) refined, the spectator-based brand equity (SBBE) scale for both the professional and the collegiate sport contexts.

Moreover, scholars have examined the antecedents of sport team brand equity; in particular, a variety of social identity–based identifications have received much attention. Based on Underwood et al.'s (2001) SIBE framework, Boyle and Magnusson (2007) supported the idea that collegiate teams' history, group experience (i.e., salient and community group), and venue positively affect social identity, leading to team brand equity. Watkins (2014) further confirmed that group experience and venue positively influence identification and sport team brand equity in the professional team sport context. In their study, Stokburger-Sauer and Teichmann (2014) found that identification with the sport team brand benefits consumer response to professional football team brands. However, these findings shed little light on how single and specific targets of identification influence sport team brand equity. Whether different targets of identification simultaneously influence sport team brand equity is a question that remains incompletely answered.

Some identification targets exist concurrently in various sport settings. For instance, Heere et al., 2011 and Katz and Heere (2016) confirmed that both university identification and team identification significantly and positively affect fan behaviors. Wear et al. (2016) found that university identification and team identification leads to brand equity for university basketball team sportswear sponsors. More specifically, the dual-identification model exists in both the context of employees within North America professional sport organizations (Swanson & Kent, 2015) and multiple online-gaming context (Badrinarayanan, Sierra, & Martin, 2015) that influence sport organization employees' and online gamers' behavior, respectively. However, no other researchers have empirically measured the formation of sport team brand equity from the dual-identification perspective. In this study, we integrate two identification-related theories to develop a dual-identification model for examining the role of different identifications on sport team brand equity.

## 2.2. Social identity-brand equity (SIBE) model

Based on the social identity theory, Underwood et al. (2001) built a social identity–brand equity (SIBE) model; the theoretical framework used by subsequent scholars to understand how sport teams' brand equity forms (see Boyle & Magnusson, 2007; Watkins, 2014). They proposed that the sport marketplace, which includes group experience, history/tradition, the role of the physical facilities, and rituals, strengthens a fan's social identity, which is consequently beneficial in building the service organization's brand equity. Based on Underwood et al.'s (2001) study, Boyle and Magnusson (2007) and Watkins (2014) extended this theory into professional and collegiate sport team contexts, and found that group experiences (including community and salient group experience), team history, and venue, influences sport teams' brand equity through social identification. In line with Boyle and Magnusson's (2007) and Watkins' (2014) arguments, we use these three components to reflect the concepts of sport markets that Underwood et al. (2001) originally identified. In addition, considers the markets of multiple Asian nations (Liu, Kim, Choi, Kim, & Peng, 2015) that elicit different fans' culture (i.e., the culture of different fans, based on nation), we also introduce fan ritual (initially discussed by Underwood et al., 2001) as the fourth antecedent of identification with the team into our illustrative conceptual model.

### 2.2.1. Group experience

Researchers address team identification using several similar terms, such as team attachment, commitment, interest, and loyalty (Trail & James, 2016), and most use fan identification and team identification interchangeably (Gwinner & Swanson, 2003; for more details, see Theodorakis, Alexandris, Tsigilis, & Karvounis, 2009). In the current study, we use identification with the sport team, which refers to the perceived psychological connectedness of individuals with a sport team (e.g., Ashforth & Mael, 1989; Wann & Branscombe, 1993). Some individuals watching a game may feel a sense of belonging and have an inherent bias against fans of other teams, thus creating a unique group experience (Underwood et al., 2001). This unique group experience distinguishes fans by in- and out-group members. This perception is likely to strengthen that fan's association with the sport team. In their study, Underwood et al. (2001) indicated that sport marketers use group experiences to facilitate fans' identification with the team. This concept has been further divided into two sub-constructs: (a) community group experience, which is defined as the perceived linkage between the sport team and its community (Boyle & Magnusson, 2007); and (b) salient group experience, which refers to the degree to which the sport competition itself serves as a mechanism for social interaction and identification in the group. Watkins 2014 and Boyle and Magnusson 2007 empirically validated the influence of community and salient group experience on fan identification with sport teams in the contexts of Western collegiate and professional basketball, respectively. Since there has been little to no attention paid to group experience in relation to identification with the sport team beyond the Western sport context, we expect that fans' group experience in the sport environment will strengthen their identification with the sport team in the Asia-based professional sport marketplace, as well. Therefore, we hypothesized:

**Hypothesis 1.** Community group experience will have a positive influence on fans' identification with the team.

**Hypothesis 2.** Salient group experience will have a positive influence on fans' identification with the team.

### 2.2.2. Team history

Team history and traditions can provide “a sense of tangibility in a largely intangible environment” (Underwood et al., 2001, p. 6). Unique aspects of a sport team (e.g., historical records, statistics, uniforms, etc.) convey a seamless continuity between past and present emerges and encourages fans of the team to feel they belong to the team history (Boyle & Magnusson, 2007). For this reason, a sport team's history plays an important role in portraying a distinct image of the team, which strengthens fans' identification with that team. Underwood et al. (2001) proposed that the history and tradition associated with a sport team lead to a greater degree of fan identification with that team. This proposition is confirmed in the Western collegiate sport setting (Boyle & Magnusson, 2007), but not in the Western professional sport (Watkins, 2014) or Asian professional sport setting. We therefore extend the relationship between team history and identification with the sport team in the Asian-based professional team sport context. Accordingly, we hypothesized:

**Hypothesis 3.** Team history will have a positive influence on fans' identification with the team.

### 2.2.3. Venue

According to Underwood et al. (2001), one of the factors for leveraging fans' social identification is a team's physical facilities. A stadium or arena becomes "the de facto home of the organization" (Boyle & Magnusson, 2007, p. 502). This is because, although athletics and coaches may change, the physical facilities provide a stable, tangible representation of a team's identity (Boyle & Magnusson, 2007). Moreover, these tangible aspects provide a distinct image of the team (Underwood et al., 2001). Not only do they provoke a positive affective response (Hightower et al., 2002; Uhrich & Benkenstein, 2012), but they also encourage fans to connect with the team (cf. Fisher & Wakefield, 1998). Furthermore, sitting in the stadium prompts fans to self-classify as a specific group defined by its place in the stadium (Lock & Funk, 2016), implying that the experience at the stadium may strengthen fans' identification toward the team. Various researchers have confirmed the positive relationship between the physical facilities and identification with the team in both Western collegiate and professional sport contexts (Boyle & Magnusson, 2007; Watkins, 2014). Since the stadium or venue used by professional teams may create a unique fan culture (Nishio, Larke, van Heerde, & Melnyk, 2016), the relationship between the venue and identification with the sport team in the Asian professional sport marketplace warrants consideration. Therefore, we hypothesized:

**Hypothesis 4.** Venue will have a positive influence on fan identification with the team.

### 2.2.4. Fan ritual

Ritual is a type of expressive, symbolic activity constructed of multiple behaviors that occur in a fixed, episodic sequence and tend to be repeated over time. Ritual behavior refers to "dramatically scripted and acted out and is performed with formality, seriousness, and inner intensity" (Rook, 1985, p. 252).

According to James, Breezeel, and Ross (2001), ritual is a part of the game experience and can "potentially strengthen the connection between consumers and a team" (p. 213). It can help establish a team fan as part of an individual's identity (Underwood et al., 2001). Neale (2009) proposed that fan ritual (including social and behavior ritual) has a positive influence on identification and loyalty. Evidence in the Western general sport context supports the positive correlation between sport fan ritual behaviors and team identification (McDonald & Karg, 2014). Compared to the Western context, Asian culture is collectivistic in nature (Hofstede, 1984) and might shape a different sport fan culture. Therefore, we hypothesized a link between fan ritual and identification with the sport team:

**Hypothesis 5.** Fan rituals have a positive influence on fans' identification with the team.

## 2.3. Customer-company identification theory

Another key identification for understanding the formation of brand equity is brand identification, which is a key consequence for understanding customer–brand relationship, and derived from customer–company identification theory (Bhattacharya & Sen, 2003). Customer–company identification, which forms the "primary psychological substrate for the kind of deep, committed, and meaningful relationships that marketers are increasingly seeking to build with their customers" (Bhattacharya & Sen, 2003, p. 76), is guided by three components: identity similarity, identity distinctiveness, and identity prestige (Bhattacharya & Sen, 2003). In this study, the definition of identification with the sport team brand refers to a consumer perceived state of oneness with a sport team brand (c.f., Stokburger-Sauer, Ratneshwar, & Sen, 2012).

The distinction between identification with the sport team brand and identification with the sport team is relevant for the following reasons. First, identification with the sport team focus is identified with the sport group itself (Gwinner & Swanson, 2003), whereas sport teams are recognized as quasi-brands (Carlson, Donovan, & Cumiskey, 2009), identification with the sport team brand focuses on consumer–brand relationships (Bhattacharya & Sen, 2003). Second, identification with the sport team relates to the benefit of self-esteem enhancement (Lock & Funk, 2016), whereas identification with the sport team brand is the pursuit of fulfilling self-defined needs (Stokburger-Sauer & Teichmann, 2014). Third, identification with the sport team reflects sport fans' "feeling psychologically connected" to the team (Ashforth & Mael, 1989; Wann & Branscombe, 1993), versus the extent to which one experiences a "perception of oneness" with the sport team brand (Stokburger-Sauer et al., 2012). Whereas the former reflects sport fans' "affective involvement," the latter represents a "perceptual cognitive construct" (Swanson & Kent, 2015).

Donovan, Janda, and Suh (2006) and Stokburger-Sauer and Teichmann (2014) introduced identification with the sport team brand for estimating some outcomes, such as affective commitment, brand loyalty, and brand advocacy. Apart from these studies, little is known as to whether identification with the sport team brand influences the formation of brand equity in the team sport setting.

Since individual target of identifications is motivated by self-definition needs (Tajfel & Turner, 1985), we follow Bhattacharya and Sen (2003) and adopts three needs from the customer–company identification theory: self-consistency, self-differentiation, and self-enhancement. Considering that, in the brand context, individuals are likely to perceive the brand as satisfying aforementioned needs (for more detail see Stokburger-Sauer et al., 2012), we are in line with Stokburger-Sauer et al. (2012), using self-congruity, team brand distinctiveness, and team brand prestige for the satisfaction of self-consistency, self-differentiation, and self-enhancement needs, respectively.

### 2.3.1. Self-congruity

Self-congruity with a sport-related entity brand refers to the degree to which fans think that the image of the sport brand matches the fans' own self-image (Sirgy, Johar, & Tidwell, 2008). According to the self-congruity theory (Sirgy, Grewal, Mangleburg, & Park, 1997; Sirgy et al., 2008), comparing the image of themselves and the image of the brand allows individuals to satisfy their need for the preservation (i.e., self-consistency; Helgeson & Supphellen, 2004) of their self-concept. This need drives identification with an entity through a social-identity process (Bhattacharya & Sen, 2003). In order to fulfill this need, individuals are likely to associate with entities (e.g., companies, brands) that are similar to attributes that they feel describe themselves (Dukerich, Golden, & Shortell, 2002). Evidence exists in the brand domain literature to support the effect of self-congruity on brand identification (Lam, Ahearne, Mullins, Hayati, & Schillewaert, 2013; Stokburger-Sauer et al., 2012); however, examination of these patterns within the Asian context will increase the generalizability of the findings. Based on this research, we hypothesized:

**Hypothesis 6.** Sport fans' self-congruity will be positively associated with identification with the team brand.

### 2.3.2. Team brand prestige

Team brand prestige reflects the relatively high status of product positioning associated with a brand (Steenkamp, Batra, & Alden, 2003). Individuals can identify with entities that have prestigious identities (Ashforth & Mael, 1989; Bhattacharya & Sen, 2003) to fulfill their need for self-enhancement. Following this logic, a sport team brand with prestige will facilitate fans' identifying with the team brand (Carlson et al., 2009). He, Li, and Harris (2012) and Stokburger-Sauer et al. (2012) have confirmed the relationship between brand prestige and brand identification. Although Carlson et al. (2009) also confirmed the relationship between the prestige of a sport team and cognitive identification in the Western sport setting, researchers have yet to examine the association between sport team brand prestige on identification toward sport team brand in the Asia-based sport marketplace. Considering that different sport leagues have their own unique culture, the level of prestige of the sport team brand may be different across various sport markets; therefore, the effect of team brand prestige on fan's identification with the team brand deserves to be investigated in the specific Asia-based professional sport context. Accordingly, we hypothesized:

**Hypothesis 7.** Team brand prestige will be positively associated with fans' identification with the team brand.

### 2.3.3. Team brand distinctiveness

Team brand distinctiveness in this study refers to the perceived uniqueness of a team brand identity (c.f., Stokburger-Sauer et al., 2012). Social identification indicates that individuals attempt to differentiate themselves from others (Tajfel & Turner, 1985) because this makes them feel good about themselves. In the organizational context, the distinctiveness of a company's identity can satisfy members' needs for self-distinctiveness and is an essential determinant of members'/consumers' identification (Bhattacharya & Sen, 2003). Stokburger-Sauer et al. (2012) argued that brands with positive images or identities that distinguish them from competitors are likely to be more identifiable to customers. Findings in their study only link brand distinctiveness and customer-brand identification in the consumer consumption context rather than the sport related context. Since perceived team distinctiveness relates to how the team is different from competitors (Carlson et al., 2009), different fans' culture may lead to different perceptions; therefore, there may be a need to further probe this link in the Asia-based professional sport context. Accordingly, we hypothesized:

**Hypothesis 8.** Team brand distinctiveness will be positively associated with fans' identification with the team brand.

## 2.4. Identification with the sport team and team brand equity

According to Underwood et al. (2001), social identification is "typified by high level of customer commitment and involvement, which is the antecedent of brand equity" (p. 4). In their study, they also propose that a higher degree of social identification positively influences customer-based brand equity. Moreover, Underwood et al. (2001) indicated that identification with the team is a manifestation of social identification. In the marketing literature, He et al. (2012) investigated the idea of formation of brand loyalty (which is a dimension of brand equity) from the social identification perspective and confirmed that social identification both directly and indirectly affected brand loyalty. Ross, Walsh, and Maxwell (2009) found that season ticket holders had an identification with the ice hockey team, which led to a positive brand association, which is a dimension that relates to brand equity. Boyle and Magnusson (2007) proved that in the Western collegiate sport context, individual social identity links to sport team brand equity, whereas Watkins (2014) operationalized social identification as identification with the sport team and found that it is associated with professional sport team brand equity in the Western sport setting. These findings have not extended to beyond Western sport context, and we therefore seek to validate the link with the following hypothesis in the Asia-based professional sport marketplace. Therefore, we hypothesized:

**Hypothesis 9.** Identification with the sport team will be positively associated with team brand equity.

## 2.5. Identification with the sport team brand and team brand equity

The relationship between brand identification and brand equity has not yet been confirmed. According to Aaker (2004) and Keller (2003), the degree of personal identification with a brand was a factor that was possibly related to brand equity. In other words, identification with a brand facilitates the creation of a different level of brand equity (Johnson, Herrmann, & Huber, 2006). In the related literature, brand identification was treated as one of the dimensions or indicators for measuring brand equity (e.g., Johnson et al., 2006; Nam et al., 2011). Accordingly, we expect a relationship between identification with the team brand and brand equity. Recent brand researchers identified and verified the direct and indirect effects of customer-brand identification on brand loyalty (He et al., 2012; Stokburger-Sauer et al., 2012), brand behavior (Bagozzi & Dholakia, 2006), and brand image (Karaosmanoglu, Bas, & Zhang, 2011). All of these are related to the concept of brand equity. Therefore, we hypothesized:

**Hypothesis 10.** Identification with the team brand will be positively associated with team brand equity.

In sum, considering that the Western and Eastern cultures are different (Westjohn, Roschk, & Magnusson, 2017), and especially the teams are culture-specific, investigating these hypotheses in the Asia-based professional sport context may provide further insights into how sport team brand equity forms. We offer an illustrative model of the hypotheses in Fig. 1.

## 3. Method

### 3.1. Participants

Participants were Chinese Professional Baseball League (CPBL) fans ( $N=548$ ). The male proportion (76.5%) was higher than the female, with the majority age range between 21 and 35 years (approximately 67.6%). Of the participants, 79.9% had a university or college degree or above with an income range between NT 20,001 and 40,000 (approx. USD 680–1360) per month (38.7%). Moreover, 59.7% of the participants indicated that they spent approximately one to six hours per week watching live matches on TV, and 60% went to the baseball field to watch matches less than twice per week.

### 3.2. Measures

We used a cross-sectional, self-administered survey consisting of 48 items. All the measurements for each construct in this study were adapted from the existing literature with the wording changed slightly to fit the current research context.

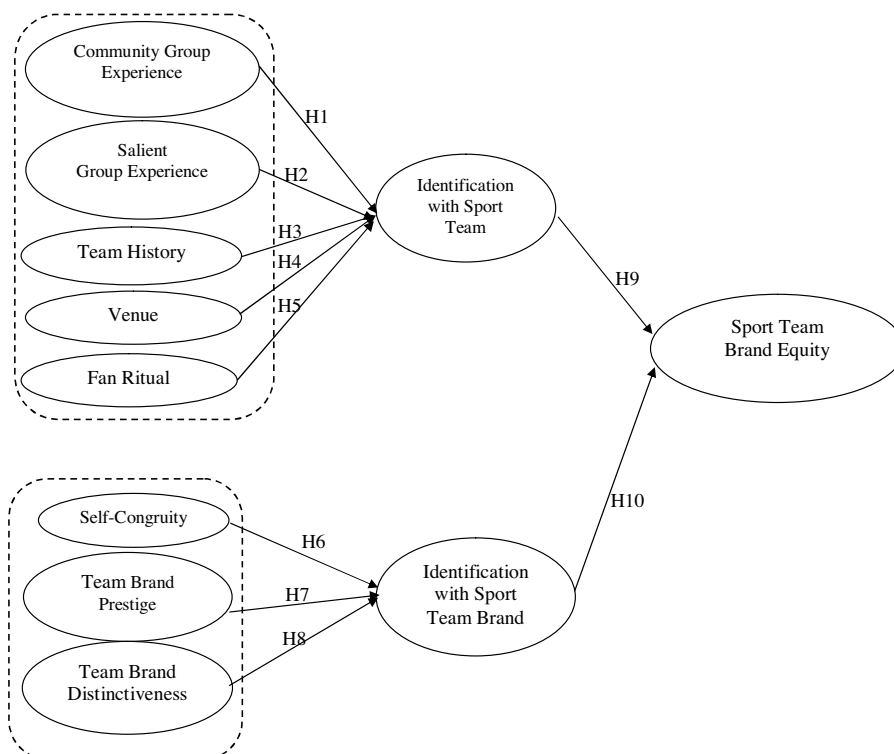


Fig. 1. Hypothesized Model of this study.

**Table 1**  
Results of measurement properties.

Construct	OL	CR	AVE
Community Group Experience <i>Boyle and Magnusson (2007); Watkins (2014)</i>		.89	.73
It's hard to think about (city) without thinking about the (baseball team)	.83 <sup>a</sup>		
The (baseball team) is a big part of the culture of (city)	.91 <sup>a</sup>		
The (city) would be a very different place without the baseball team	.83 <sup>a</sup>		
Salient Group Experience <i>Boyle and Magnusson (2007); Watkins (2014)</i>		.93	.81
I have a lot of fun at (baseball team) games just being part of the crowd	.87 <sup>a</sup>		
Participating in (baseball team) rituals helps me feel connected to the team	.92 <sup>a</sup>		
Participating in (baseball team) rituals allows me to show I'm a fan of the (baseball team)	.91 <sup>a</sup>		
Team History <i>Boyle and Magnusson (2007); Watkins (2014)</i>		.87	.70
It's long and storied past make the (baseball team) of today something special	.81 <sup>a</sup>		
The rich tradition of (baseball team) is something you don't find at other places	.86 <sup>a</sup>		
The (baseball team) has a unique place in the history of the CPBL	.84 <sup>a</sup>		
Physical Facility (Venue) <i>Boyle and Magnusson (2007); Watkins (2014)</i>		.87	.70
I think the (baseball team's venue) is a unique place	.85 <sup>a</sup>		
I have a lot of great memories at (baseball team's venue)	.88 <sup>a</sup>		
I would be upset if (baseball team's venue) was torn down tomorrow	.77 <sup>a</sup>		
Fan Ritual <i>Neale (2009)</i>		.91	.57
I painted or decorated any part of my body with (baseball team) colors	.75 <sup>a</sup>		
I sing the (baseball team) song with other members of the crowd	.71 <sup>a</sup>		
I purchase (baseball team) merchandise at a game	.81 <sup>a</sup>		
I wear (baseball team) colors when I attend the game	.86 <sup>a</sup>		
I wear a "lucky charm" that can be seen by others	.82 <sup>a</sup>		
I wear a "lucky charm" that cannot be seen by others	.68 <sup>a</sup>		
I pray for (baseball team) success before or during the game	.62 <sup>a</sup>		
Identification with the Sport Team <i>Wann and Branscombe (1993)</i>		.89	.61
I see myself as a fan of (baseball team)	.73 <sup>a</sup>		
My friends would say I am fan of the (baseball team)	.82 <sup>a</sup>		
Being a fan of (baseball team) is very important to me	.88 <sup>a</sup>		
I often display the (baseball team) logo at home or at work	.75 <sup>a</sup>		
I fit in with other fans of the (baseball team)	.72 <sup>a</sup>		
Self-Congruity <i>Sirgy et al. (1997)</i>		.90	.69
The image of (baseball team) is consistent with how I see myself	.79 <sup>a</sup>		
Supporting (baseball team) reflects who I am	.84 <sup>a</sup>		
People similar to me support this (baseball team)	.85 <sup>a</sup>		
Supporting (baseball team) is consistent with my self-image	.84 <sup>a</sup>		
Team Brand Prestige <i>Currás-Pérez et al. (2009)</i>		.91	.76
The people around me have a positive image of (baseball team)	.82 <sup>a</sup>		
In general, (baseball team) is a respected brand	.91 <sup>a</sup>		
(Baseball team) is a brand with a good reputation	.90 <sup>a</sup>		
Team Brand Distinctiveness <i>Currás-Pérez et al. (2009)</i>		.92	.79
(Baseball team) is different from the other brands in the baseball sector	.89 <sup>a</sup>		
(Baseball team) is different from the rest of its competitors in CPBL	.90 <sup>a</sup>		
(Baseball team) stands out from its competitors in CPBL	.88 <sup>a</sup>		
Identification with the Sport Team Brand <i>Stokburger-Sauer et al. (2012)</i>		.93	.72
I feel a strong sense of belonging to (baseball team's) brand	.75 <sup>a</sup>		
I identify strongly with (baseball team's) brand	.88 <sup>a</sup>		
(Baseball team's) brand embodies what I believe in	.87 <sup>a</sup>		
(Baseball team's) brand is like a part of me	.89 <sup>a</sup>		
(Baseball team's) brand has a great deal of personal meaning for me	.85 <sup>a</sup>		
Sport Team Brand Equity		.93	.64

**Table 1** (Continued)

Construct	OL	CR	AVE
<b>Watkins (2014)</b>			
I consider myself to be loyal to the (baseball team)	.79 <sup>a</sup>		
The (baseball team) would be my first choice	.83 <sup>a</sup>		
I believe that, overall, the (baseball team) is a high quality organization	.84 <sup>a</sup>		
The (baseball team) is competitive with other teams in the CPBL	.78 <sup>a</sup>		
Attending a (baseball team) game is worth the time and money to do so	.84 <sup>a</sup>		
I can recognize the (baseball team) among other teams in the CPBL	.76 <sup>a</sup>		
I can recall the (baseball team) logo quickly	.75 <sup>a</sup>		
Some characteristics of the (baseball team) come to mind quickly	.80 <sup>a</sup>		

Notes. a:  $p < .05$ . OL = outer loadings. CR = composite reliability. AVE = average variance extracted.

Following research by Boyle and Magnusson (2007) and Watkins (2014), we used the following four constructs: community group experience, salient group experience, team history, and venue. Each construct had three similar items. Items were anchored by a Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Fan ritual was measured using Neale's (2009) seven-item scale, with each item rated on a scale of 0 (*never*), 1 (*only once*), 2 (*rarely*), 3 (*sometimes*), 4 (*often*), and 5 (*every game*). To measure identification with the team, we adopted a five-item scale from Wann and Branscombe (1993). To measure the first antecedent of identification with the sport team brand, that is, self-congruity, we used a four-item scale developed by Sirgy et al. (1997). Brand prestige and brand distinctiveness were both measured by using a three-item scale developed by Currás-Pérez, Bigné-Alcañiz, and Alvarado-Herrera (2009). A five-item scale developed by Stokburger-Sauer et al. (2012) was used to measure the identification with sport team brand. Finally, the outcome construct of this study, sport team brand equity, was adopted from Watkins (2014), using an eight-item scale. For these items, respondents were asked to indicate on a Likert scale the extent to which the items described their feelings, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) for the statements.

Because these scales were originally developed in English and the data were collected in a non-English-speaking country, Taiwan, a back-translation procedure suggested by Reynolds, Diamantopoulos, and Schlegelmilch (1993) was followed. There were no differences when comparing the original and back-translated versions. After that, the initial self-administered questionnaire was sent to ten keen baseball fans who are familiar with the sponsorship relationship in CPBL via email. Based on their suggestions, a slight change was made to ensure the clarity of all the measurement items.

### 3.3. Procedures

We conducted a field study with fans of the most popular baseball team in Taiwan's first professional league, the CPBL. We chose this team based on two criteria: (a) it was the most successful home team in the league (The China Post, 2014), thus ensuring enough fans; and (b) the team had the most creative strategy for building the baseball team, and provided the highest expectations in their fans among all the baseball teams in this league (Hsieh & Hsu, 2015).

We collected data at all weekday home games of this team within a three-month period during the baseball season. Trained interviewers distributed questionnaires in different places at the baseball stadium in the pre-game phase of each game by randomly approaching fans to request that they participate in the study. In order to promote voluntary participation, we used a lottery incentive equivalent to NT\$500 (approx. US\$15) for six participants. Of the 591 distributed questionnaires, 548 valid (i.e., completed without missing the items) questionnaires (with a useful response rate of 92.72%) were received.

### 3.4. Data analysis

In this study, we used the partial least squares structural equation modeling (PLS-SEM) because this method had no assumptions of the underlying data distribution and has greater statistical power (i.e., high efficiency in parameter estimation) than traditional covariance-based SEM (Hair, Hult, Ringle, & Sarstedt, 2014). SmartPLS 2.0 M3 (Ringle, Sven, & Alexander, 2005) was used for the analysis.

All the measurements in this study were reflective, and the internal consistency, indicator reliability, convergent validity, and discriminant validity (Chin, 1998; Hair et al., 2014) were assessed. Internal consistency reliability was tested by calculating composite reliability (CR; Chin, 1998; Fornell & Larcker, 1981), and indicator reliability was tested using indicator outer loadings. Both values should exceed the threshold of .70 (Hair et al., 2014). Convergent validity was tested using average variance extracted (AVE; Chin, 1998; Fornell & Larcker, 1981), which should exceed the threshold of .50 (Fornell and Larcker, 1981). Discriminant validity was tested by satisfying the following two criteria: the square root of the AVE of each construct should exceed the intercorrelations of the construct with the other model constructs (Fornell and Larcker, 1981); the outer loadings of a construct should exceed all the other constructs' outer loadings (Hair et al., 2014). In addition, although Henseler and Sarstedt (2013, p. 566) indicated that "lack of global goodness-of-fit (hereafter, GOF) measures has long been considered a drawback of PLS path modeling," the GOF indices were not considered in the current study because of



the following reasons: First, PLS-SEM focuses on the prediction purpose; that is, “rely[ing] on measures indicating the model’s predictive capabilities to judge the model’s quality” (Hair et al., 2014, p. 96). Second, although some alternative fit measures are provided to represent GOF, these indices offer little value and the better fit may sacrifice predictive power of PLS-SEM (for more detail see Hair, Hult, Ringle, & Sarstedt, 2017).

## 4. Results

### 4.1. Assessment of measurement properties

Results show that all the CR values of the eleven constructs for the data set ranged from .87 to .93, exceeding the .70 threshold, and suggesting acceptable internal consistency (see Table 1). Most of the outer loadings were higher than .70, suggesting all constructs exhibited satisfactory indicator reliability (see Table 1). For the convergent validity, all the CR and AVE values were higher than the threshold, which indicates a good convergent validity (see Table 1). All the square roots of the AVEs (bold values on the diagonal in Table 2) were greater than the off-diagonal correlations among the constructs (Table 2). In addition, the results show that none of the cross-outer loading problems were achieved for all the constructs (see Appendix A). In summary, the results demonstrated good discriminant validity.

### 4.2. Hypotheses testing

We followed Hair et al. (2014), using a nonparametric bootstrapping procedure with 5,000 resamples to calculate the *t*-value for hypothesis testing. With regard to the direct effects, the results reported in Table 3 reveal that most of the proposed hypotheses were empirically confirmed, except for two. The results revealed a strong positive, significant effect for community group experience ( $\beta = .11, p < .001$ ) on identification with the team, supporting Hypothesis 1. Salient group experience exhibited a positive and significant relationship with identification with the team ( $\beta = .28, p < .001$ ), which confirms Hypothesis 2. In support of Hypothesis 3, we observed a positive relationship between team history and identification with the team ( $\beta = .17, p < .001$ ). The result of venue and identification with the team showed a non-significant coefficient ( $\beta = .06, p = .151$ ), thus failing to confirm Hypothesis 4. For Hypothesis 5, we predicted that fan ritual would have a positive impact on identification with the team, and this was supported ( $\beta = .33, p < .001$ ). We observed a positive relationship between self-congruity and identification with the team brand ( $\beta = .62, p < .001$ ), which supports Hypothesis 6.

Team brand prestige revealed a positive and significant relationship toward identification with the team brand ( $\beta = .15, p < .001$ ), which supports Hypothesis 7. Contrary to the expectation, the relationship between team brand distinctiveness and identification with the team brand was not significant ( $\beta = .08, p = .073$ ), and therefore failed to support Hypothesis 8. We confirmed the proposed relationship between identification with the team and team brand equity ( $\beta = .63, p < .001$ ), which supports Hypothesis 9. Finally, identification with the team brand was positively associated with team brand equity ( $\beta = .16, p < .001$ ), which supports Hypothesis 10 (see Table 3 and Fig. 2).

Besides presenting the path coefficients between construct relationships, Hair et al. (2014) also encouraged to report effect size for understanding the magnitude of the relative predict effect of the antecedents on the dependent constructs. Accordingly, this study following Hair et al. (2014), the Cohen’s  $f^2$  was assessed. Following Cohen’s (1988) suggestion for effect sizes, values of .02, .15 and .35 indicate small, medium and large effect, respectively. With regard to the antecedents of identification with sport team, community group experience ( $f^2 = .011$ ), salient group experience ( $f^2 = .073$ ), and team history

**Table 2**  
Correlation matrix, item means, standard deviations (SD).

Item	Correlation Matrix (n = 548)											
	1	2	3	4	5	6	7	8	9	10	11	
1.CGGE	<b>.85</b>											
2.SGE	.69	<b>.90</b>										
3.TH	.43	.44	<b>.83</b>									
4.VEN	.42	.50	.59	<b>.84</b>								
5.FR	.29	.37	.36	.32	<b>.75</b>							
6.IT	.49	.58	.50	.46	.55	<b>.78</b>						
7.SC	.45	.41	.55	.46	.39	.53	<b>.83</b>					
8.TBP	.51	.55	.46	.44	.33	.54	.49	<b>.87</b>				
9.TBD	.50	.58	.49	.49	.33	.53	.43	.76	<b>.89</b>			
10.ITB	.44	.41	.60	.44	.45	.62	.72	.51	.46	<b>.85</b>		
11.TBE	.54	.67	.53	.57	.46	.72	.46	.70	.73	.55	<b>.80</b>	
Mean	5.84	5.99	5.67	6.14	4.08	5.53	5.28	5.83	6.05	5.16	6.00	
SD	.97	.92	1.00	.89	1.03	1.01	.97	.90	.87	1.05	.84	

Notes. Square root of the AVE is on the diagonal (in bold). CGE=Community Group Experience. SGE=Salient Group Experience. TH=Team History. VEN=Venue. FR=Fan Ritual. IT=Identification with the Sport Team. SC=Self-Congruity. TBP=Team Brand Prestige. TBD=Team Brand Distinctiveness. ITB=Identification with the Sport Team Brand. TBE=Sport Team Brand Equity.

**Table 3**  
Structural model test results for hypotheses (direct effect).

Hypotheses Relationship	Path coefficient	t-value	Hypotheses supported
H1: CGE → IT	0.11***	2.33	Yes
H2: SGE → IT	0.28***	5.68	Yes
H3: TH → IT	0.17***	3.55	Yes
H4: VEN → IT	0.06 <sup>n.s.</sup>	1.44	No
H5: FR → IT	0.33***	9.61	Yes
H6: SC → ITB	0.62***	16.47	Yes
H7: TBP → ITB	0.15***	3.13	Yes
H8: TBD → ITB	0.08 <sup>n.s.</sup>	1.80	No
H9: IT → TBE	0.63***	18.81	Yes
H10: ITB → TBE	0.16***	3.99	Yes

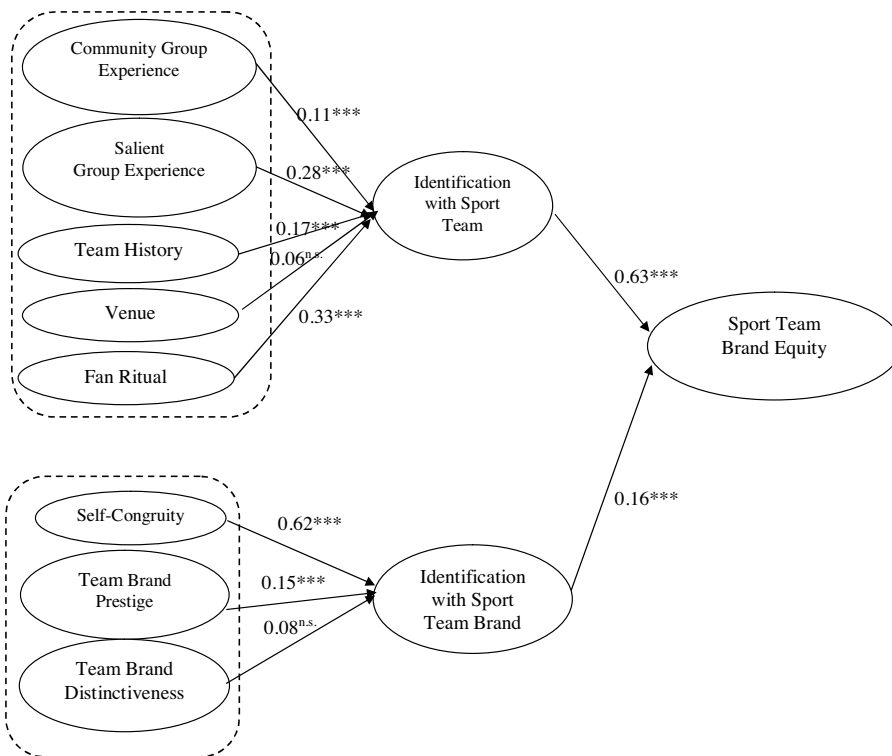
Notes. \*\*\*  $p < .01$ . n.s. = non-significance. CGE = Community Group Experience. SGE = Salient Group Experience. TH = Team History. VEN = Venue. FR = Fan Ritual. IT = Identification with the Sport Team. SC = Self-Congruity. TBP = Team Brand Prestige. TBD = Team Brand Distinctiveness. ITB = Identification with the Sport Team Brand. TBE = Sport Team Brand Equity.

( $f^2 = .034$ ) have small effects, whereas fan ritual ( $f^2 = .177$ ) has medium effect. Self-congruity ( $f^2 = .019$ ) and team brand prestige ( $f^2 = .633$ ) has small and large effect size on identification with the sport team brand, respectively. Compared with identification with sport team brand ( $f^2 = .036$ ) has small effect, identification with sport team ( $f^2 = .564$ ) has a large effect on sport team brand equity. In sum, there are five small effects, one medium effect, and two large effects.

**5. Discussion**

In this study, we aimed to examine how dual-identification of identification with the team and identification with the team brand bridges the sport marketplace characteristics and brand identity-related factors on the formation of sport team brand equity. We did so with a particular focus on the Asian professional team sport setting. Results from PLS-SEM analysis confirmed the proposed dual-identification model and supported all but two hypotheses.

The major finding was that community group experience, salient group experience, team history, and fan ritual demonstrated a positive influence on identification with the team, which was in accordance with the previous findings in professional and collegiate contexts (e.g., Boyle & Magnusson, 2007; McDonald & Karg, 2014; Watkins, 2014). Moreover, the



**Fig. 2.** Standardized estimates of the structural model.

Notes. \*\*\* $p < .01$ .

result showed that fan ritual has higher path coefficient on identification with the team than community group experience, salient group experience, and team history does. The effect size of fan ritual on identification with the team is also larger than the other three antecedents. This indicated that fan ritual could be more influential on strengthening fans' levels of identification with the team. The smaller effect size of community group experience, salient group experience, and team history on identification with the sport team indicated that focusing solely on each individual element may not have large enough effect on strengthening fans level of identification with the team, it is likely to considered these three factors simultaneously. The non-significant result of the relationship between venue and identification with the team was consistent with previous inconclusive findings in both Boyle and Magnusson's (2007) and Watkins' (2014) studies. This is perhaps because in Taiwan the baseball field/stadium is owned by local government rather than the home team, which may induce difficulties for teams in providing a unique experience that represents the sport team (see Underwood et al., 2001). Likewise, self-congruity and team brand prestige also showed a positive relationship with identification with the team brand. The higher path coefficient and larger effect size from self-congruity to identification with the team brand demonstrated that self-congruity is more effective in forming identification with the team brand than is the team brand prestige. Despite the small effect size of team brand prestige, our finding further extends Stokburger-Sauer et al.'s (2012) finding to the team sport context. Inconsistent with findings in previous brand (Stokburger-Sauer et al., 2012) and sport (Carlson et al., 2009) literature, team brand distinctiveness did not have a significant impact on identification with the team brand. A possible explanation is that baseball team brand names in Taiwan, like most baseball teams in East-Asia nations (e.g., Japan and Korea), include the name of the company that owns the team. To some extent, the team can be seen as a new product in the new product category (i.e., professional baseball), which can be seen as a kind of brand extension strategy for the parent brand (see Walsh et al., 2015). In this case, baseball team fans may already be familiar with the owner/parent brand, which reduces the distinctiveness or unique image of the team brand. Finally, findings of this study revealed that, compared with identification with the team brand, identification with the team had a higher path coefficient and larger effect size on strengthening team brand equity. The small effect size of identification with sport team brand did not make the underlying effect insignificant, which indicated that its improvement on team brand equity is relatively weak. Generally, results suggest that the dual-identification model exists in the context of professional team sport, as team fans simultaneously and distinctly identify with overall team and their brands, which improves team brand equity.

In addition, we offer theoretical as well as practical implications. No researchers have distinguished between the two identifications and how they influence team's brand equity; thus, we expand extant knowledge by supporting the notion that the dual-identification model can explain the formation of sport team brand equity in the professional sport context. This goes beyond previous team brand equity studies, such as those of Boyle and Magnusson (2007) and Watkins (2014), which have been limited to how a single target of identification bridges the related antecedents and team brand equity. Another contribution of this research lies in the examination of the dual-identification model in a non-Western professional sport context. Asia (especially the Pacific Rim) is developing into one of the most rapid growth markets in sport. There is also evidence of the growth of professional sport leagues throughout East Asia (Humphreys and Watanabe, 2014). The sport fan cultures are also different across countries, which broadens the viewpoint of current sport marketing literature, which is primarily in Western countries, and provides further understanding of the formation of team brand equity in the Asian sport marketplace.

The dual-identification model also offers practical assistance to sport team managers by showing that they should understand how the team itself and the team brand represent valid targets for identification. They could use both identifications for segmenting fans in order to develop different, customized strategies to appeal to both segments. For those with a high level of identification with the team, building a social community via group experience, team history, and fan rituals could be considered. For fans with strong identification with the team brand, managers should pay attention to boost fans' self-congruity and strengthen the sport team brand prestige.

Team managers can learn how to strengthen identification with the team based on the results that group experience, team history, and fan ritual drive identification with the sport team. The highest path coefficient and medium effect size from fan ritual to identification with the team suggested that team managers can consider cooperating with other entities (such as singers, the military, and so on) for creating a baseball party theme at home games to strengthen an enjoyable, memorable, and unique atmosphere for their fans. Moreover, Asian fans are comfortable integrating technology into the game, such as check-ins at stadium, which can also be considered as a part of fan ritual.

With regard to the group experience, managers could provide a carefully designed and interactive group experience during a home game to deepen the connection between their fans. Providing a specific outlet such as fan-zones with a bar or dining place where fans interact with players and coaches, could enhance fans' experience while watching the game and help increase their identification. With regard to the team history, managers should provide a platform to share the teams' achievements and milestones to emphasize the glory days of the team to their fans, which may strengthen the fans' identification toward the team. Both of these strategies can be used to integrate with social media on that team by providing virtual interaction experiences and extensive team history on team's specific apps.

Furthermore, team managers can also learn how to strengthen identification with the team brand based on that self-congruity and sport team brand prestige leads to identification with the sport team brand. As self-congruity has higher path coefficient and larger effect size on identification with the team brand, sport team managers need to be concerned about fans' idiosyncratic experiences with their team brand and to explore the self-image related evaluation of the target sports team fans. A possibility is for managers to integrate their communication media such as the sport team's TV or their social

media (such as a Facebook fan page) that consistently conveys values that are congruent with the value of team fans. To enhance perceptions of sport team prestige, delivering a wholesome superior image, such as a successful image (such as winning the championship) or positive image (such as being involved in social responsibilities or charity), and using either traditional or social media channel should be encouraged. By doing so, the perception of high team brand prestige may trigger their fans to more willingly identify with the team brand.

In sum, despite that sport team managers can improved dual identification through individual element, considered that the effect size as aforementioned, it is recommended that team managers are likely to consider all these strategies simultaneously to achieve large enough impact on sport team brand equity.

### 5.1. Limitation and future research directions

While our study had many strengths, there are some research limitations that provide potential direction for future research. First, a cross-sectional, self-administered survey of this study does not allow for conclusions to be made regarding causal relationships, nor does it account for the effects of different times of the year. Future researchers should therefore consider conducting an experimental or longitudinal research that could provide a better understanding of the dynamics of these factors to address this issue. Second, the analyses of the proposed model were conducted using one team within a single Asian country, Taiwan. Cross-validation with different samples (such as different sport) or a cross-country comparison is recommended for future research. Third, because this study merely investigated the proposed relationship between the constructs in the conceptual model, introducing moderating and control variables of the impact of two types of identification on sport team brand equity could be considered for further study. For example, future research may consider different types of fans, such as single ticket holders, members of organized fan clubs, season ticket holders, or VIP season ticket holders, where the level of fan engagement may be a possible moderator.

### Acknowledgments

The support of the Ministry of Science and Technology (MOST) of Taiwan is gratefully acknowledged. The current research is part of the first author's research project number: MOST 103-2410-H-035 –039 –.

### Appendix A. Factor structure matrix of loadings and cross-loadings

	CGE	SGE	TH	VEN	FR	IT	SC	TBP	TBD	ITB	TBE
CGE1	<b>0.83</b>	<b>0.52</b>	<b>0.33</b>	<b>0.31</b>	<b>0.26</b>	<b>0.41</b>	0.37	0.38	0.36	0.36	0.42
CGE2	<b>0.90</b>	0.66	0.43	0.45	0.24	0.45	0.40	0.51	0.49	0.38	0.53
CGE3	<b>0.83</b>	0.57	0.36	0.33	0.23	0.40	0.39	0.44	0.43	0.38	0.44
SGE1	0.66	<b>0.87</b>	0.42	0.48	0.30	0.50	0.35	0.48	0.52	0.34	0.60
SGE2	0.62	<b>0.92</b>	0.38	0.47	0.34	0.52	0.35	0.52	0.54	0.36	0.61
SGE3	0.59	<b>0.91</b>	0.39	0.42	0.37	0.56	0.41	0.49	0.50	0.42	0.59
TH1	0.40	0.36	<b>0.81</b>	0.46	0.34	0.43	0.55	0.44	0.40	0.60	0.47
TH2	0.35	0.34	<b>0.86</b>	0.43	0.29	0.39	0.43	0.35	0.39	0.47	0.42
TH3	0.34	0.40	<b>0.84</b>	0.58	0.29	0.43	0.42	0.36	0.43	0.45	0.44
VEN1	0.36	0.42	0.57	<b>0.85</b>	0.30	0.40	0.45	0.39	0.45	0.42	0.50
VEN2	0.37	0.45	0.48	<b>0.88</b>	0.30	0.44	0.40	0.36	0.40	0.38	0.51
VEN3	0.35	0.39	0.44	<b>0.77</b>	0.25	0.32	0.30	0.36	0.38	0.30	0.42
FR1	0.18	0.23	0.22	0.18	<b>0.75</b>	0.40	0.30	0.21	0.21	0.32	0.30
FR2	0.17	0.33	0.25	0.34	<b>0.71</b>	0.41	0.26	0.20	0.26	0.23	0.35
FR3	0.22	0.30	0.30	0.30	<b>0.81</b>	0.44	0.32	0.26	0.26	0.36	0.41
FR4	0.22	0.33	0.30	0.29	<b>0.85</b>	0.46	0.28	0.25	0.26	0.37	0.42
FR5	0.21	0.24	0.31	0.24	<b>0.82</b>	0.44	0.35	0.25	0.24	0.41	0.37
FR6	0.18	0.18	0.23	0.11	<b>0.68</b>	0.33	0.30	0.23	0.17	0.34	0.22
FR7	0.30	0.35	0.31	0.30	<b>0.62</b>	0.42	0.26	0.31	0.33	0.31	0.39
IT 1	0.34	0.48	0.42	0.46	0.33	<b>0.73</b>	0.36	0.38	0.38	0.44	0.52
IT 2	0.36	0.48	0.38	0.39	0.46	<b>0.82</b>	0.37	0.42	0.46	0.46	0.65
IT 3	0.45	0.51	0.46	0.37	0.47	<b>0.88</b>	0.46	0.48	0.48	0.55	0.67
IT 4	0.36	0.40	0.35	0.26	0.51	<b>0.75</b>	0.44	0.39	0.32	0.49	0.47
IT 5	0.42	0.43	0.33	0.33	0.39	<b>0.72</b>	0.44	0.46	0.44	0.49	0.55
SC1	0.44	0.37	0.46	0.42	0.29	0.36	<b>0.79</b>	0.43	0.39	0.54	0.39
SC2	0.33	0.30	0.45	0.32	0.33	0.44	<b>0.84</b>	0.36	0.32	0.62	0.34
SC3	0.33	0.32	0.43	0.36	0.35	0.49	<b>0.85</b>	0.39	0.31	0.60	0.38
SC4	0.41	0.38	0.52	0.45	0.33	0.47	<b>0.84</b>	0.46	0.43	0.64	0.46
TBP1	0.42	0.45	0.35	0.37	0.26	0.46	0.38	<b>0.82</b>	0.56	0.39	0.56
TBP2	0.45	0.47	0.42	0.39	0.28	0.47	0.45	<b>0.91</b>	0.67	0.49	0.60
TBP3	0.49	0.52	0.44	0.40	0.32	0.50	0.46	<b>0.90</b>	0.78	0.46	0.67
TBD1	0.44	0.51	0.43	0.40	0.29	0.49	0.41	0.72	<b>0.89</b>	0.46	0.63
TBD2	0.45	0.49	0.44	0.43	0.30	0.44	0.40	0.68	<b>0.90</b>	0.39	0.64
TBD3	0.44	0.54	0.45	0.49	0.30	0.49	0.36	0.65	<b>0.88</b>	0.38	0.68
ITB1	0.34	0.39	0.49	0.45	0.36	0.55	0.56	0.46	0.44	<b>0.75</b>	0.54
ITB2	0.39	0.36	0.50	0.35	0.42	0.54	0.66	0.42	0.38	<b>0.87</b>	0.46

(Continued)

	CGE	SGE	TH	VEN	FR	IT	SC	TBP	TBD	ITB	TBE
ITB3	0.39	0.29	0.52	0.33	0.35	0.49	0.62	0.43	0.38	<b>0.87</b>	0.42
ITB4	0.39	0.35	0.52	0.35	0.39	0.54	0.63	0.44	0.39	<b>0.89</b>	0.47
ITB5	0.35	0.36	0.53	0.40	0.38	0.52	0.59	0.42	0.37	<b>0.85</b>	0.47
TBE1	0.42	0.52	0.47	0.40	0.53	0.75	0.50	0.52	0.51	0.60	<b>0.79</b>
TBE2	0.41	0.52	0.51	0.43	0.46	0.72	0.42	0.56	0.53	0.53	<b>0.83</b>
TBE3	0.48	0.55	0.46	0.49	0.35	0.55	0.40	0.62	0.61	0.47	<b>0.84</b>
TBE4	0.43	0.50	0.38	0.45	0.28	0.48	0.30	0.55	0.59	0.37	<b>0.78</b>
TBE5	0.48	0.59	0.40	0.50	0.36	0.55	0.37	0.61	0.66	0.39	<b>0.84</b>
TBE6	0.43	0.52	0.38	0.45	0.32	0.51	0.33	0.54	0.60	0.38	<b>0.76</b>
TBE7	0.39	0.52	0.37	0.46	0.27	0.47	0.28	0.54	0.59	0.31	<b>0.75</b>
TBE8	0.44	0.55	0.39	0.48	0.35	0.57	0.33	0.58	0.60	0.39	<b>0.80</b>

Notes. CGE = Community Group Experience. SGE = Salient Group Experience. TH = Team History. VEN = Venue. FR = Fan Ritual. IT = Identification with the Sport Team. SC = Self-Congruity. TBP = Team Brand Prestige. TBD = Team Brand Distinctiveness. ITB = Identification with the Sport Team Brand. TBE = Sport Team Brand Equity.

## References

- Aaker, D. A. (2004). *Brand portfolio strategy: Creating relevance, differentiation, energy, leverage, and clarity*. New York: The Free Press.
- Ashforth, B. E., & Johnson, S. A. (2001). Which hat to wear?: The relative salience of multiple identities in organizational contexts. *Social Identity Processes in Organizational Contexts*, 31, 48.
- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14(1), 20–39.
- Badrinarayanan, V. A., Sierra, J. J., & Martin, K. M. (2015). A dual identification framework of online multiplayer video games: The case of massively multiplayer online role playing games (MMORPGs). *Journal of Business Research*, 68(5), 1045–1052.
- Bagozzi, R. P., & Dholakia, U. M. (2006). Antecedents and purchase consequences of customer participation in small group brand communities. *International Journal of Research in Marketing*, 23(1), 45–61.
- Bauer, H. H., Sauer, N. E., & Schmitt, P. (2005). Customer-based brand equity in the team sport industry: Operationalization and impact on the economic success of sport teams. *European Journal of Marketing*, 39(5/6), 496–513.
- Bhattacharya, C. B., & Sen, S. (2003). Consumer-company identification: A framework for understanding consumers' relationships with companies. *Journal of Marketing*, 67(2), 76–88.
- Biscaia, R., Correia, A., Ross, S., Rosado, A., & Maroco, J. (2013). Spectator-based brand equity in professional soccer. *Sport Marketing Quarterly*, 22, 20–32.
- Biscaia, R., Ross, S., Yoshida, M., Correia, A., Rosado, A., & Maroco, J. (2016). Investigating the role of fan club membership on perceptions of team brand equity in football. *Sport Management Review*, 19, 157–170.
- Boyle, B. A., & Magnusson, P. (2007). Social identity and brand equity formation: A comparative study of collegiate sports fans. *Journal of Sport Management*, 21, 497–520.
- Brand Finance (2015). *Brand finance football 50 2015*. [http://brandfinance.com/images/upload/bf\\_football\\_50\\_low\\_res.pdf](http://brandfinance.com/images/upload/bf_football_50_low_res.pdf), (Accessed 1 September, 2015).
- Carlson, B. D., Donovan, D. T., & Cumiskey, K. J. (2009). Consumer-brand relationships in sport: Brand personality and identification. *International Journal of Retail & Distribution Management*, 37(4), 370–384.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*, (2nd ed.) New Jersey: Lawrence Erlbaum.
- Currás-Pérez, R., Bigné-Alcañiz, E., & Alvarado-Herrera, A. (2009). The role of self-definitional principles in consumer identification with a socially responsible company. *Journal of Business Ethics*, 89(4), 547–564.
- Donavan, D. T., Janda, S., & Suh, J. (2006). Environmental influences in corporate brand identification and outcomes. *Journal of Brand Management*, 14(1/2), 125–136.
- Dukerich, J. M., Golden, B. R., & Shortell, S. M. (2002). Beauty in the eye of the beholder: The impact of organizational identification, identity: And image on the cooperative behaviors of physicians. *Administrative Science Quarterly*, 47, 507–533.
- Fisher, R. J., & Wakefield, K. (1998). Factors leading to group identification: A field study of winners and losers. *Journal of Psychology & Marketing*, 15(1), 23–40.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Gladden, J. M., & Milne, G. R. (1999). Examining the importance of brand equity in professional sports. *Sport Marketing Quarterly*, 8(1), 21–29.
- Gladden, J. M., Milne, G. R., & Sutton, W. A. (1998). A conceptual framework for evaluating brand equity in Division I college athletics. *Journal of Sport Management*, 12(1), 1–19.
- Gwinner, K., & Swanson, S. (2003). A model of fan identification: Antecedents and sponsorship outcomes. *Journal of Services Marketing*, 17(3), 275–294.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks: Sage.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*, (2nd ed.) Thousand Oaks: Sage.
- He, H., Li, Y., & Harris, L. (2012). Social identity perspective on brand loyalty. *Journal of Business Research*, 65(5), 648–657.
- Heere, B., Walker, M., Yoshida, M., Ko, Y. J., Jordan, J. S., & James, J. D. (2011). Brand community development through associated communities: Grounding community measurement within social identity theory. *Journal of Marketing Theory and Practice*, 19(4), 407–422.
- Helgeson, J. G., & Supphellen, M. (2004). A conceptual and measurement comparison of self-congruity and brand personality: The impact of socially desirable responding. *International Journal of Market Research*, 46(2), 205–233.
- Henseler, J., & Sarstedt, M. (2013). Goodness-of-fit indices for partial least squares path modeling. *Computer Statistics*, 28(2), 565–580.
- Hightower, R., Brady, M. K., & Baker, T. L. (2002). Investigating the role of the physical environment in hedonic service consumption: An exploratory study of sporting events. *Journal of Business Research*, 55(9), 697–707.
- Hofstede, G. (1984). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hsieh, M. L., & Hsu, S. S. (2015). 2015 Golden Service Awards- healthy competition within conglomerates. *CommonWealth magazine*, Vol. 570(2015/4/16) <http://english.cw.com.tw/article/article.action?id=253#sthash.8CMb0MrM.dpuf> (Accessed March, 2017).
- Humphreys, B., & Watanabe, N. M. (2014). The history and formation of East Asian sports leagues. In Y. H. Lee, & R. Fort (Eds.), *The sports business in the Pacific Rim* (pp. 3–24). New York: Springer.
- James, J. D., Breezeel, G. S., & Ross, S. (2001). A two-stage study of the reasons to begin and continue tailgating. *Sport Marketing Quarterly*, 10(4), 212–222.

- Johnson, M. D., Herrmann, A., & Huber, F. (2006). The evolution of loyalty intentions. *Journal of Marketing*, 70(2), 122–132.
- Karaosmanoglu, E., Bas, A., & Zhang, K. (2011). The role of the other customer effect in corporate marketing: Its impact on corporate image and consumer-company identification. *European Journal of Marketing*, 45(9/10), 1416–1445.
- Katz, M., & Heere, B. (2016). New team: New fans: A longitudinal examination of team identification as a driver of university identification. *Journal of Sport Management*, 30, 135–148.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1–22.
- Keller, K. L. (2003). Brand synthesis: The multidimensionality of brand knowledge. *Journal of Consumer Research*, 29(4), 595–600.
- Lam, S. K., Ahearne, M., Mullins, R., Hayati, B., & Schillewaert, N. (2013). Exploring the dynamics of antecedents to consumer-brand identification with a new brand. *Journal of the Academy of Marketing Science*, 41(2), 234–252.
- Liu, H., Kim, K. H., Choi, Y. K., Kim, S. J., & Peng, S. (2015). Sports sponsorship effects on customer equity: An Asian market application. *International Journal of Advertising: The Review of Marketing Communications*, 34(2), 307–326.
- Lock, D. J., & Funk, D. C. (2016). The multiple in-group identity framework. *Sport Management Review*, 19(2), 85–96.
- McDonald, H., & Karg, A. J. (2014). Managing co-creation in professional sports: The antecedents and consequences of ritualized spectator behavior. *Sport Management Review*, 17(3), 292–309.
- Nam, J., Ekinci, Y., & Whyatt, G. (2011). Brand equity, brand loyalty and consumer satisfaction. *Annals of Tourism Research*, 38(3), 1009–1030.
- Neale, L. (2009). The fan ritual scale and sports attendance. *2009 sport marketing association conference (SMA VII)*.
- Nishio, T., Larke, R., van Heerde, H., & Melynk, V. (2016). Analysing the motivations of Japanese international sports-fan tourists. *European Sport Management Quarterly*, 16(4), 487–501.
- Reynolds, N., Diamantopoulos, A., & Schlegelmilch, B. B. (1993). Pretesting in questionnaire design: A review of the literature and suggestions for further research. *Journal of the Market Research Society*, 35(2), 171–182.
- Ringle, C. M., Sven, W., & Alexander, W. (2005). *SmartPLS 2.0. M3*. Hamburg: SmartPLShttp://www.smartpls.de.
- Rook, D. (1985). The ritual dimension of consumer behavior. *Journal of Consumer Research*, 12(3), 251–264.
- Ross, S. D., Russell, K. C., & Bang, H. (2008). An empirical assessment of spectator-based brand equity. *Journal of Sport Management*, 22, 322–337.
- Ross, S. D., Walsh, P., & Maxwell, H. D. (2009). The impact of team identification on ice hockey brand associations. *International Journal of Sport Management and Marketing*, 5(1–2), 196–210.
- Ross, S. D. (2006). A conceptual framework for understanding spectator-based brand equity. *Journal of Sport Management*, 20(1), 22–38.
- Sainan, P., Balasubramanian, S., & Bayus, B. L. (2010). Consumer options: Theory and an empirical application to a sports market. *Journal of Marketing Research*, 47(3), 401–414.
- Sirgy, M. J., Grewal, D., Mangleburg, T. F., & Park, J. O. (1997). Assessing the predictive validity of two methods of measuring self-image congruence. *Journal of the Academy of Marketing Science*, 25(3), 229–241.
- Sirgy, M. J., Lee, D. J., Johar, J. S., & Tidwell, J. (2008). Effect of self-congruity with sponsorship on brand loyalty. *Journal of Business Research*, 61(10), 1091–1097.
- Steenkamp, J. B. E. M., Batra, R., & Alden, D. L. (2003). How perceived brand globalness creates brand value. *Journal of International Business Studies*, 34(1), 53–65.
- Stokburger-Sauer, N. E., & Teichmann, K. (2014). The relevance of consumer-brand identification in the team sport industry. *Marketing Review St. Gallen*, 2, 20–30.
- Stokburger-Sauer, N., Ratneshwar, S., & Sen, S. (2012). Drivers of consumer-brand identification. *International Journal of Research in Marketing*, 29(4), 406–418.
- Swanson, S., & Kent, A. (2015). Fandom in the workplace: Multi-target identification in professional team sports. *Journal of Sport Management*, 29, 461–477.
- Tajfel, H., & Turner, J. C. (1985). *The social identity theory of intergroup behavior*. Chicago: Nelson-Hall.
- The China Post (2014). *Lamigo serve as an example of good baseball management*, *The China Post* (2015/11/4). <http://www.chinapost.com.tw/editorial/taiwan-issues/2014/11/05/421071/p1/Lamigo-serve.htm> (Accessed March 2017).
- Theodorakis, N. D., Koustelios, A., Robinson, L., & Barlas, A. (2009). Moderating role of team identification on the relationship between service quality and repurchase intentions among spectators of professional sports. *Managing Service Quality*, 19(4), 456–473.
- Theodorakis, N. D., Alexandris, K., Tsigilis, N., & Karvounis, S. (2013). Predicting spectators' behavioural intentions in professional football: The role of satisfaction and service quality. *Sport Management Review*, 16(1), 85–96.
- Trail, G. T., & James, J. D. (2016). Seven deadly sins of manuscript writing: Reflections of two experienced reviewers. *Journal of Global Sport Management*, 1(3–4), 142–156.
- Uhrich, S., & Benkenstein, M. (2012). Physical and social atmospheric effects in hedonic service consumption: Customers' roles at sporting events. *The Service Industries Journal*, 32(11), 1741–1757.
- Underwood, R., Bond, E., & Baer, R. (2001). Building service brands via social identity: Lessons from the sports marketplace. *Journal of Marketing Theory and Practice*, 9(1), 1–13.
- Walsh, P., Hwang, H., Lim, C. H., & Pedersen, P. M. (2015). Examining the use of professional sport teams as a brand extension strategy in Korean professional baseball. *Sport Marketing Quarterly*, 24, 214–224.
- Wann, D. L., & Branscombe, N. R. (1993). Sports fans: Measuring degree of identification with their team. *International Journal of Sport Psychology*, 24(1), 1–17.
- Watkins, B. (2014). Revisiting the social identity-brand equity model: An application to professional sports. *Journal of Sport Management*, 28, 471–480.
- Wear, H., Heere, B., & Clopton, A. (2016). Are they wearing their pride on their sleeve?: Examining the impact of team and university identification upon brand equity. *Sport Marketing Quarterly*, 25, 79–89.
- Westjohn, S. A., Roschk, H., & Magnusson, P. (2017). Eastern versus Western culture pricing strategy: Superstition, lucky numbers, and localization. *Journal of International Marketing*, 25(1), 72–90.