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More Than Meets The Eye: Development Of A Sport Event Stimuli And Destination Image Fit Scale

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MORE THAN MEETS THE EYE: DEVELOPMENT OF A SPORT EVENT STIMULI AND
DESTINATION IMAGE FIT SCALE

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ABSTRACT

Much research demonstrates an impact of sensory experience on sports fans' satisfaction with live sporting events (Lee, Heere, & Chung, 2013; Lee, Lee, Seo, & Green, 2012). It was, however, not studied how to enhance those sense-centric experiences. One possible approach would be to utilize unique region-based characteristics to design unforgettable and emotionally engaging experiences. Most sporting events are location-based, and venues are also considered as a landmark of the area where they are placed. Consequently, we can create a natural link between sporting events and the hosting cities or regions. Visual designs, musical contents, famous local food, and signature smells, those sensory "images" of the local space can be brought into the live sporting context by which spectators consume the event not merely as a sports game but as a cultural experience. We can achieve the "sporting event image/local image fit" by crafting fans' sensory experiences congruent to the local sensory features.

Despite the potential value of the topic of interest, there was no instrument that adequately measures the level of image fit. Thus, the purpose of this study was to develop a reliable and valid scale to measure spectators' perception of sensory image fit between live sporting events and local destinations. A qualitative investigation via focus groups was conducted to identify the dimensionality of the scale and to develop individual measurement items. Then, two sets of data were collected from online surveys from which an explorative and confirmatory factor analysis was performed respectively to examine the multi-dimensionality of the scale. Five factors (sight fit, sound fit, smell fit,

food fit, and beverage fit) emerged from the analyses, and the results of both explorative and confirmatory factor analysis were satisfactory based on multiple criteria suggested by prior research. The results of this study concluded that the conceptualization of sensory image fit is feasible in sports fans' mind, and the developed instrument possesses statistical soundness and appropriate conceptual nuance. Accordingly, the developed scale provides the groundwork for future investigations in measuring how sporting events effectively and ingeniously incorporate destination culture.

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LIST OF ABBREVIATIONS

AVE... Average Variance Extracted

CFI... Comparative Fit Index

CFA ....Confirmatory Factor Analysis

EFA .... Exploratory Factor Analysis

RMSEM... Root Mean Square Error of Approximation

SEM...Structural Equation Modeling

SIF ....Sensory Image Fit

SRMR..Standardized Root Mean Square Residual

TFI...Tucker-Lewis Index

CHAPTER 1

INTRODUCTION

1.1 STATEMENT OF THE PROBLEM

Many scholars have broadly acknowledged the importance of consuming live sports events (Lee, Heere, & Chung, 2013; Lee, Lee, Seo, & Green, 2012; Tombs & McColl-Kennedy, 2003; Wakefield & Blodgett, 1999; Wakefield & Sloan, 1995; Westerbeek & Shilbury, 1999). The uniqueness of live events is that there is no substitute for real-time entertainment and the unique atmosphere is directly associated with spectators' satisfaction. According to prior research, the special ambiance in sports venues is one significant reason why people attend sports games (Bauer, Sauer, & Exler, 2005; Holt, 1995). Also, previous research suggests enjoyment caused by the atmosphere has positive impacts not just on the satisfaction of the attendee's experience but also on motivation to recommend a visit to others (Madrigal, 1995; Wakefield & Blodgett, 1999).

In an effort to create a competitive advantage marketers have increased their attention to one or more of the human senses in sporting events as a means to engage fans. Lee et al. (2012) provide empirical evidence of how sensory experiences can positively influence spectators' satisfaction in a baseball game. Visual designs, music, food selections, unique smells, and tactile feelings are all sensory factors that can be incorporated into a live event. However, there has been no further study that elucidates how to boost the effectiveness of sense-centric experiences and to enhance different types of sensory stimuli in the live environment. However, just providing sensory contents

would not guarantee attraction or retention of sports consumers. Listening to famous pop or rock music through PA (public address) speakers, eating hot dogs, or watching glittering signage, those simple sensory stimuli are neither a unique experience nor allurement to spectators. Instead, sports marketers and venue managers must offer distinctive and novel services where spectators are able to build emotional ties, which is the key element of successful customer attraction and retention (Lindstrom, 2005). The way how marketers currently use sensory stimuli is not effective enough to heighten sports organizations' positioning in the competitive marketplace in which attending a live sporting event is no longer a dominant way to consume spectator sports due to numerous other options available (Filo, Lock, & Karg, 2015).

One method used by marketers and practitioners to boost spectators' emotional engagement with sensory services in a sporting event is utilizing inimitable region-based sensory characteristics. Spectators may enjoy experiencing sensory stimuli unique to the local culture (e.g., cowboy and rodeo imageries at an event in Texas, Milwaukee beer in Wisconsin, and extreme weather conditions of certain places such as Green Bay). The strong link between the game and its local hosting place assumes to be internalized in fans' mind as Wann (2006) suggests that fans who highly identify with teams also feel attached to a more extensive social group such as the city to which the team belongs. That is why residents are proud of having a sports team and anecdotes created from sporting events can become part of a history of the city. The psychological attachment to the team and the locality provides fans with a sense of belonging (Heere & James, 2007; Wann, 2006; Wann & Branscombe, 1991) and thus, spectators may desire the richness of home culture and sense of home while attending a live sporting event.

Local-related sensory services may also appeal to tourists since those unique attributes provide travelers with a chance of enjoying the local feelings. The Kentucky Derby, which is known to be one of the most successful local events, is not just a sporting event or a horse racing yet it is a touristic product for spectators to consume the destination of Kentucky with the signature visual images, the smell of roses, and the taste of authentic dishes. On the other hand, in most of the other spectator events, experiences have weighted heavily on the sport itself neglecting the power of influence of the original nature of an event. This probably gives a reason why team sports games are called just by the name of the team (e.g., Panthers games or Patriots games) instead of the full name with the place (e.g., Carolina Panthers games or New England Patriots games). The fact that attendance is heavily reliant on home fans further reflects the current position of sporting events are not tourist destinations. Although the field of sport tourism has recently received significant attention by scholars, especially after the popularity of mega events such as the Olympic Games, and World Cups (Hinch & Higham (2001), most of local events are still being consumed by the home-based sports fans. By capitalizing on local sensory characteristics, we may expect to turn a sporting event into composite live entertainment and as a result, attract both local sports fans and travelers together. Consequently, we could expand the concept of sport tourism beyond mega events.

A theoretical explanation has also been made to support the usage of local characteristics for sporting events. It has been assumed that there is a joint image capital between a sporting game and its destination (Hallman & Breuer, 2010; Xing & Chalip, 2006). Destination marketers, therefore, have harnessed sporting events as a strategic marketing tool to enhance the image of the destination and differentiate its tourism

offerings (Dimanche, 2003; Kaplanidou & Vogt, 2007). The opposite direction would also be possible because sports venues are considered landmarks of the cities or regions in which they are located (Crawford, 2004; Taylor, 1991). The relationship between local and event images is characterized as reciprocal (Glogger, 1999), which means that an image fit can take place between the two objects. Each city or region has its images and peculiarities that influence society and culture for those individuals in proximity (Dinnie, 2011). Also, each destination has inimitable images that can function as resources for building a competitive advantage (Gladden & Funk, 2001; Robinson & Miller, 2003; Ross, Russell, & Bang, 2008). Exclusive local recourses are accordingly crucial to sensory marketing whose fundamental principle is creating uniqueness using the five types of human senses (Hultén, 2012; Krishna, 2012, Lindstrom, 2005). In this sense, gaining something inimitable is crucial for the success of sensory marketing and in the spectator event context, exploiting the locality would qualify a sporting event as a real sensory experience provider.

Utilizing locality may not be the only way to create uniqueness and gain a competitive advantage in sensory marketing. However, it would be the most effective means because the recourses already exist and are recognized by consumers so that we do not need to create anything new. Furthermore, the local characteristics are already unique by itself. Many organizations have tried out something new and never implemented before. However, if the resources used are easily imitable or transferable, competitors can easily accommodate the same strategy resulting in the loss of the competitive advantage. For instance, the Seattle Mariners recently started selling fried crickets at Safeco Field. The purpose was to serve something "different" and deliver experience only available at

the venue. However, since that approach was not strongly based on creating a competitive advantage, the Atlanta Hawks were able to mimic the strategy, and now the team is selling roasted crickets at their games. In contrast, if we make a fit between the sensory stimuli available at sporting events and the sensory images of the destination, we not only utilize the local features but also position the event in consumers' mind that each event is unique and belongs to a particular place. Once we achieve a sensory fit and deliver sensory services only available at the event, we can say that spectators do not just attend a "Panthers' game," but they enjoy a "Carolina Panthers' game."

Consequently, the concept of image fit as the result of a shared image capital between a sporting event and the hosting destination is of high interest to marketing scholars (Hallman & Breuer, 2010). Even though the abovementioned studies shed some light on the gravity of interrelationships between sports events and destination images, research on the topic is still in its infancy. First, no existing scale directly measures the level of image fit of the two entities. Xing and Chalip (2006) demonstrate evidence of interrelation of sporting events and destination images by testing two separate measures of image scales. Hallman and Breuer (2010) then measured the fit between sports events and the destination image by analyzing indirect multi-attributive fit index. Prior studies took an approach of indirect measurement with two respective scales instead of developing one instrument that directly quantifies the fit level. An even more significant gap is that no study has considered sensory aspects of images while comparing the two types images based on the level of fit. In other words, despite considerable theoretical development and empirical speculation, no practical study has tested relationships among sensory image congruence in the context of sporting events and host destinations As such,

the field appears to be lack of theoretical direction in dealing with sensory contents in a

sporting event as a means of compelling marketing communication.

1.2 PURPOSE OF STUDY

The current study will extend the previous research on spectators' sensory

experiences and suggest a way to enhance those sensual adventures via introducing

destination images, particularly in relation to the five human senses. Specifically, the

purpose of this study is to develop a reliable and valid scale that measures the degree to

which the images of sensory experiences in a sporting event fit the images of the hosting

local city or region. Guided by the concept of image fit (Baumgarth,2000; Grohs &

Reisinger, 2005) and following the framework of Churchill (1979), and Hinkin, Tracey,

and Enz (1997), this study will create a multidimensional scale to quantify the

effectiveness of introducing local culture into a sporting event. Although previous studies

suggest a few ways of measuring fit, there is no scale to measure the sensory image fit

(SIF) between the two different domains of sporting events and destinations. The scale

development process will therefore consist of two parts: (1) to conduct a qualitative

investigation on the topic to identify the dimensionality of the scale and individual items

via focus groups, and (2) to statistically test initial reliability and validity of the scale.

Accordingly, this study will contribute to the understanding of sensory experience

research to the field of sports consumption.

1.3 SIGNIFICANCE AND IMPLICATIONS OF STUDY

Spectators' sensual experiences of events via the five senses are known to have

significant impacts on event satisfaction (Lee et al., 2012). This study will investigate

spectators' perception of sensory experiences further by combining two separate domains

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of images. This new approach would inform sports marketers to enrich sensory experiences: how to provide more memorable and unique services tailored specifically to each event and the venue resulting in the creation of a competitive advantage, which may also foster the sustainability of the spectator sports business. The significance of this study can be beyond the sports setting. Since sporting events can generate substantial benefits to the city and region (Getz, 1998), the strategic integration of sensory experience in sporting events and destinations may provide marketers with a new approach to extending the economic benefits of the events beyond the sport venues, and thus heighten the host city's attraction as a tourism destination both before, and especially after the event (Bramwell, 1997; Chalip, 2001, 2004).

Regarding a theoretical contribution, this study will be the first one that directly measures the fit level between a sporting event and its destination image in conjunction with human senses. Accordingly, the study will expand the current knowledge in image fit to the domains of multi-sensory perception. Moreover, the sensory aspects of sporting events and destinations would develop the literature in sports branding. The essence of leveraging destination images to improve sensory experiences is to matching elements of the local characteristics and the event image. This idea is not only corresponding to the image fit literature as many scholars have acknowledged the gravity of creating a consistent image, but also to the principle of creating a competitive advantage. The combination of sensory stimuli in a live event and the destination would subsequently create a new and inimitable image of the event, which is an uncharted field of study in the sports marketing industry. The successful development of the scale would allow scholars and practitioners to explore the possibility of branding a live event with local-related

resources. Ultimately, the outcome of the current investigation will make a contribution to the sensory branding research in the context of the spectator sports.

CHAPTER 2

LITERATURE REVIEW

2.1 SENSORY EXPERIENCES AT SPORTING EVENTS

An event is a spatial-temporal phenomenon that is deliberately planned based on the purpose and the program (Getz, 2008). A sporting event is designed for purposes of competition and entertainment for fans, and thus it is defined as a live event of sports competition with the presence of spectators at specific time and place. Spectators' experiences in a sporting event are not just watching games; instead, the physical and social environment allows them to experience and consume live events in a variety of ways. Unlike watching on televisions or the internet, being in a sports venue enables them to communicate with their favorite teams, players, and other fans with all five senses. Visual and tangible cues in a baseball game (e.g., spectators can appreciate the visual beauty of a ballpark's architecture and grounds) may effectively provide spectators with a unique visual metaphor of the total supply of an organization (Bitner, 1992). In term of auditory stimuli, exciting music at an arena is a taken-for-granted experience. Moreover, there is an increasing trend of a partnership between sports teams and artists to compose a song that reflects the image and personality of the team through style and lyrics (Ballouli & Heere, 2015). Gustatory stimuli are dominant in the sports game setting because spectators consider enjoying the taste of the food available at concession stands is a part of their game-day experience (Gaffney & Bale, 2004). When it comes to olfactory stimuli, Lindstrom (2005) demonstrates that over 75% of human emotions are

generated by the sense of smell and its effectiveness is greatly boosted when combined with other types of sensory triggers. Today's marketers are now aware of the usefulness of olfactory marketing to create an exceptional environment offering fragrance to stimulate the game day experience of spectators. A scent pumping machine called Stadium Air Scent Cannon by Global Special Effects, which can scent entire auditoriums or stadiums is one example of long-range scent technology on the sports market today. In the NFL, the St. Louise Rams threw cotton candy smell so that the warm and softly spun sugar smell was the first thing fans enjoyed as they arrived at the game. Last but not the least component of senses is touch. Spectators feel comfortable seats and experience exhilarating moments packed by other fans (Gaffney & Bale, 2004; Lee et al.,2012). However, the touch sensation can be beyond physical contacts as spectator may feel thrilled with the vibration through stomping and clapping, which indicates sports fans can enjoy any tactile feel of the surroundings by being in the live situation.

By combining above mentioned senses altogether, attendees of a live sporting event are not mere spectators but are active participants who experience particular sensory features given by the service venues. The distinguishing atmosphere in sports venues thus functions as one of the most important reasons why people attend live sporting events (Holt, 1995). Sensory marketing literature supports the notion that organizations can significantly affect consumer behavior equally through the five senses (Hultén, Broweus, & Dijk, 2009; Lindstrom, 2005). Each experience is accompanied by different types of senses, and when consumers experience several senses together, there is a higher chance for them to be emotionally engaged. As Hultén, Rodrigues, & Brito (2011) demonstrate from their study, the appealing level of experience with a product or

service is associated with the number of senses involved. Similarly, the effectiveness of sensory experience is expected to be much more substantial because of spectator experience engages all five senses. Since we consider a sporting event as multi-sensory entertainment appealing to all five senses, the physical environment can be a perfect experimental site where we can test the possibility of enhancing multi-sensory experiences. Instead of focusing on a single component of human senses, by integrating all sensory stimuli in the sports service environment and creating one unique image as a whole, we expect to maximize the effectiveness of sensory experience at sporting events.

2.2 HUMAN SENSES AS MARKETING RESOURCES

The five human senses have a curial impact on individuals' experiences not just in spectator sports but also in the process of any decision making in purchases and consumption. Before individuals become conscious or aware of companies, products, or services, they must go through their senses in order to process the given information. Because of this underlying mechanism where the five human senses provide invaluable information of different objects through smell, sound, sight, taste, and touch, it is well documented and known in science and psychology that the five senses affect human behavior. (Lindstrom, 2005; Hultén et al., 2011). Despite the vital importance of the human senses, the marketing perspective of senses have long been neglected (Gobé, 2001; Hultén et al., 2009; Lindstrom, 2005; Schmitt, 1999). With growing interest in sensory marketing among practitioners and researchers, all five human senses are today receiving much-increased attention as the center of a firm's marketing strategy and tactics to convey emotionally engaging messages (Schmitt, 1999).

Marketers in various businesses have been building knowledge in reaching patrons through the five senses. On the academic side, researchers have also endeavored to comprehend what sensory marketing precisely is. Krishna (2012) defines sensory marketing as marketing practices to entice consumers by using their senses influencing feelings, judgment, and behaviors. It is an application of the understanding of human senses to the domain of marketing mainly concentrating on consumer perception, cognition, emotion, learning, preference, choice, or evaluation (Krishna, 2012). There have been efforts to conceptualize sensory marketing by scholars (Hultén, 2012; Krishna, 2012). First, Hultén's sensory marketing model underscores the significance of the human senses as a means of getting closer to customer's mind at a deeper level than traditional marketing models. In an effort to expound the emotional connection between firms and consumers, Hultén (2012) stresses the significance of an experience, which is also advocated by Gobé (2001). They argue that a firm should develop a more original signature to create emotional linkages with customers from which emotional and impalpable values become of greater importance to the human senses. The basic structure of the model is that a firm develops sensorial strategies through sensors, sensations, and sensory expression regarding the mind and senses. A sensor is defined as a communicative instrument (e.g., equipment, material, or employees associated with the customer) through which the firm conveys and expresses an image and identity, and the translating process is called sensory expression. This expression then functions as a trigger for a consumer to shape emotion or feeling (sensation) that is deliberately lined with the image of the firm. The outcome of the sensorial strategies is consumer's sensory experience that leaves an imprint in the customer's mind.

Krishna (2012) also provides a conceptual framework of sensory marketing in a slightly different way. She demonstrates the five types of sensation determine how individuals perceive the given stimuli, and the perception is then correlated with emotion and cognition. Her definition of sensation is "when the stimulus impinges upon the receptor cells of a sensory organ," which is more on a biochemical and neurological concern. Perception is then "the awareness or understanding of sensory information." The core part of the model is that the biochemical sensation is not the same as the perception. Instead, our brains subjectively interpret the sensation so that the way individuals perceive sensory stimuli differs depending on the context and the receiver of the information. Therefore, the lines of sensation and perception do not appear to be parallel, and Krishna's model (2012) illustrates the process of receiving and perceiving sensory expressions by firms.

Hultén (2012)'s primary interest was an experience through sensory stimuli whereas Krishna (2012) paid more attention to the distinctive perception of sensory information. However, the two models share a common idea of sensory marketing that investigates the emotional relationships and nurtures an enduring connection with consumers for the optimization of a brand image (Isacsson, Alakoski, & Bäck 2009). The kernel of sensory marketing models is thus to allow customers to consume products and services through sensory experiences, which gives marketers opportunities to reach the individual's mind and heart (Hulte, 2011).

Anderson and Sullivan state (1993) that in the competitive marketing environment, consumer satisfaction through experiences with the five human senses is one of the most important predictors of consumer retention. Academic research has shown that different

sensory impressions impact consumer experience and perception of goods and services through all five types of senses in different ways. The following sections outline some strategies implemented by marketers.

2.2.1 VISUAL MARKETING

Within the highly cluttered and competitive market condition, firms should be able to be seen effortlessly and precisely. Vision is undoubtedly one of the most dominant senses in several contexts given a plethora of research within the framework of marketing. Orth and Malkewitz (2008) state that the visual sense is the most powerful one for individuals to discover differences and variations in the environment and is also the most common sense in perceiving goods or services. For a firm, this proposes possibilities to visualize and clarify its identity and values in various ways (Schmitt, 1999). For example, a sight strategy may emphasize the significance of color, design in addition to exterior and interior. Color can directly influence our emotions, and its evidence was provided by Solomon (2008). He demonstrates some colors (e.g., red) generate excitement and arouse appetite, whereas others (e.g., blue) induce more relaxed feeling than others. Visual designs also create signature images. For example, the Sydney Opera House is a landmark for not only the city but also for the entire country for its visually appealing architecture (Lindstrom, 2005).

In a product level, there are numerous examples of visual marketing as such the bottle shape and color of Swedish Absolut Vodka, and the stylish split-shape motor grille of BMW has been a distinctive feature implemented for picturing their visual identities and values (Beverland, 2005). These aesthetic aspects of products are known to make an impact on consumers' judgment. Hagtvedt and Patrick (2008) demonstrate this

phenomenon of visual stimuli in their experimental study in which participants were fleetingly exposed to an art image using several stimuli of the package, advertising, and design of the product they evaluated. The results revealed that brief exposure to an art image gave rise to a spillover of luxury perceptions that subsequently resulted in favorable evaluations of the product. Consumers' perceptions of luxury mediate the impact of visual art on product evaluations in this case, but the presence of any appealing visual images can spill over to consumer products affecting how they are perceived and appraised (Peracchio & Meyers-Levy 2005).

2.2.2 AUDITORY MARKETING

Music has been known to make an impact on consumers' evaluations of unrelated products. Based on classical conditioning theory, Gorn (1982) exhibits that people are more likely to have favorable attitudes toward a product with liked music than disliked melody. Besides, Alpert and Alpert (1990) claim that music makes a significant effect on audience moods and purchase. Consequently, sound stimuli have been applied in mass marketing predominantly in television and radio commercials to transfer messages and increase awareness about a firm as well as its products since the early twentieth century. In those media platforms, music is often premeditated to dramatize or enhance a scenery (Lindstrom, 2005) because the sense of sound is highly connected to emotions and feelings manipulating experiences and interpretations (Garlin & Owen, 2006; Sweeney & Wyber, 2002). In sensory marketing, sound stimuli can be utilized through multiple types of sound logos, jingles, voices, to music (Lindstrom, 2005). The famous example of the Intel Inside jingle has successfully built emotional connections between customers and the Intel brand (Schmitt, 1999).

The possibilities of applying sound in other ways are also evident. A sensorial sound strategy emphasizes the significance of such sensory expressions as atmosphere, theme, and attentiveness often used to reinforce the identity and image of a brand resulting in creating a sound experience (Hultén, 2011). For instance, Starbucks, which plays a song by Norah Jones, concentrates on building a sonic signature of the retail environment. With the concept of "the Sound of Starbucks" the company hopes to offer its guests a memorable sound experience. Music can also affect people's degree of arousal. The U.S. apparel company Abercrombie & Fitch plays music with a fast tempo to achieve a high degree of customer arousal whereas Starbucks uses music with a slower pace to produce the opposite effect. Moreover, many sounds can influence individuals even when they do not recognize them. With a low-frequency continuous sound, such as the noise from a fan or refrigerator, we may experience considerable relief. (Salamon, Kim, Beaulieu, & Stefano, 2003). In each case, music that represents the desired level of arousal may play a role to elucidate the brand's identity (North & Hargreaves, 1997).

2.2.3 OLFACTORY MARKETING

The scent business is getting attention from practitioners and is expected to become a vast business area in the future (Jeffries, 2007). It may not be astonishing that a pleasing (unpleasing) odor can cause positive (negative) assessments of accompanying products (Morrin & Ratneshwar, 2000) as the sense of smell is known to be closely related to emotions and memories (Goldkuhl & Styvén 2007). Krishna (2012) argues that the effect of senses on emotions is enhanced when multiple sensory stimuli are connected harmoniously. For instance, a heating pad coated with the smell of cinnamon may be perceived as "warmer" than a typical pad. Because cinnamon implies the sense of warmth,

the scent can strengthen a heating pad's textile feeling and thermal effectiveness. Such impacts appear to be very subtle instead of readily recognizable, but that is why the sense of smell is so impactful and useful in marketing. Consumers usually do not notice an embedded scent as a marketing gimmick, and thus the marketing tactic can be seamlessly penetrated in consumers' minds without receiving the opposition to advertisements and other marketing messages.

Odor recognition studies show that people's ability to recognize scents persists over very long time periods, with minimal reductions in recognition accuracy from seconds (Engen, Kuisma, & Eimas, 1973) to months or years after exposure (Engen & Ross, 1973; Zucco, 2003). Morrin and Ratneshwar (2003) also demonstrate that ambient scent increases recall and recognition of brands seen. Mitchell, Kahn, and Knasko (1995) then suggest that ambient odors result in memories and affect elaboration on product information and choice. In shorts, numerous researchers found that scent enhances recall of information, and scent-based retrieval cues also increase the facilitative effect of visual stimuli (e.g., pictures or videos) on recall. Hence, firms have become aware of the fact that customers' sensory experience depends mostly on the environment with unique scents. As an example, Rolls-Royce added the smell of classic models to new models to make consumers recognize its unique scent (Lindstrom, 2005). Singapore Airlines provides another outstanding example of creating an olfactory brand experience by creating its own patented fragrance designed for the cabin crew and imbued it in the hot towels. In some situations, it has even been shown that profits have increased by up to 40 percent after applying scents (Gobé, 2001). It is thus no surprise that U.S. scent experts assert that scents are the best way to achieve a sensory experience (Jeffries, 2007).

2.2.4 GUSTATORY MARKETING

The taste of products contributes to the pleasure it produces since consumers are interested in a specific flavor (Biedekarken & Henneberg, 2006). The U.S. oral care company Colgate is reliant to some extent on the unique taste of its toothpaste and the company now is perceived to be one of the leading brands as far as the taste of its products. (Lindstrom, 2005). Another example of consumer engagement in taste is the origin of Coca-Cola Vanilla. The soda company conducted multiple studies targeting at loyal Coca-Cola customers to understand their Coke-drinking habits and routines deeply. It was found that some customers added vanilla flavor to their Cokes, which became one inspiration for Coca-Cola Vanilla (Hultén, 2011). It is thus apparent that tastes can function as a means to manifest identity and accentuate lifestyle as a sense expression.

The sense of taste applies to restaurants as such the Alamo Drafthouse Cinema in Austin differentiates itself by the food and drink service given inside the theater (Barlow & Maul, 2000). The taste sensation, however, can also be exploited in other settings where the taste is naturally stimulated. The culture magazine Visionaire proves a good example: the company offered the presentation of real samples of tastes that were related to season and theme with twenty-five taste strips, each with a different taste. To strengthen the taste experience, each taste was associated with pictures to trigger the imagination and intensify the sense perception. The taste was part of the reading experience and invited customers to gain more knowledge, delight in and experience new flavors. The example indicates that the sense of taste is the most distinct emotional sense and often interacts with other types of senses (Krishna, 2012).

2.2.5 TACTILE MARKETING

Finally, the sense of touch is the tactile one that is related to information and feelings about a product. Citrin, Stem Jr, Spangenberg, and Clark (2003) examined consumers' needs in relation to the role of tactile input in the context of Internet shopping. The results of their study demonstrate practical evidence indicating that the tactile input plays a vital role in determining the choice of a shopping medium for certain consumer groups. Although the Internet provides numerous advantages both to marketers (e.g., low inventory costs and easy access to sizable markets) and to consumers (e.g., convenience, less time consuming, and low search costs), it evidently presents challenges that retailing is facing due to its limited capability of offering tactile input to consumers. (Peck & Wiggins, 2006). Many other studies have also demonstrated the importance of touch in marketing. After Coca-Cola changed its container design from glass bottles to cans, its brand awareness diminished due to the lack of the distinct tactile feel of the glass bottle (Gobé, 2001). Kellogg is also known for effectively leveraging the texture of their products (Lindstrom, 2005). Many cereal experts claim that the taste can be determined not just by the flavor but also by the texture of the food. Therefore, it is not surprising that Kellogg's signature crunchiness of the grain is one aspect of their brand asset in the same way their recipe and logo represent the firm's identity with the success of the breakfast product.

Tactile marketing is not limited to the texture of products, yet much of the new research focuses on our corporal sensations without conscious awareness that assists our decision making. Williams and Bargh (2008) support the credence for tactile sensation and interpersonal behavior in their experimental study that inspected the impact of

temperature on social evaluation. In their study, the participants were asked to assess a person's personality, and the authors discovered that people who had held a warm beverage were more likely to think that the person was friendly than people who had held a cold one. A neuro-physiological explanation is possible as such the same part of the brain was activated for physical warmth as for interpersonal warmth so that the sensible heat led to interpersonal warmth. Another study by Huang, Zhang, Hui, & Wyer (2014) even demonstrates that warm ambient temperatures can impel people to conform to a crowd. Overall, results from much research indicate that tactile marketing should not be confined to the texture of products; instead, surroundings that stimulates one's skin such as temperature or humidity may be utilized as marketing resources for reinforcing the image and identity of products.

2.3 ISSUES AND OPPORTUNITIES OF UTILIZING HUMAN SENSES IN SPORTS

Findings from empirical studies have supported the effectiveness of marketing through sensory experience. However, most studies in spectator sports have been inclined to focus on the importance of physical environment and how spectators' perceived enjoyment induced by the atmosphere in the event affects team identity, and satisfaction (Madrigal, 1995, Wakefield & Blodgett, 1999). Only two studies directly examined the effect of sensory experience on team identity (Lee et al., 2013) and satisfaction (Lee et al., 2012), and no further study has been conducted to suggest or propose an innovate approach to heighten the effectiveness of sensory marketing in live sports. Although a few researchers examined one specific sense (sound) as a novel marketing communication (Ballouli & Bennett, 2014; Ballouli & Heere, 2015), the field of sports marketing research has not been comprehensive enough for embodying multi-sensory

stimuli available. Instead of implementing well-planned business strategies, sensory marketing in sporting events is short-sighted and just haphazardly use the senses. When the human senses are at the center of sensory marketing, a firm's chance of distinguishing itself is simplified: a firm needs to create new paths to be innovative and to establish emotional linkages with customers. We can achieve the emotional tie with consumers if the five human senses are activated in getting closer and deeper into the customer's mind and heart. At the same time, it is necessary to make some imprint on the consciousness of individuals, who are expected to be able to recognize the firm following the sense expressions the firm leaves.

Sensory marketing with a strategic direction, hence, should be based on revealing each organization's core values and identity by creating inimitable images with the help of the human senses. In this sense, the current stage of sensory marketing in sports is facing a significant issue. So-called "unique strategies" implemented by marketers now are mostly not special, and consequently, other sports venues can very easily apply the same scheme. In the example of the Rams' trial of using the special cotton candy scent or the Seattle Mariners' fried crickets, the spectators may enjoy the novel experience initially, yet it is hard to rationalize whether the specific type of scent belongs to the team or the venue. Because there is no association between the identity of the team and the marketing idea, using that scent will lose uniqueness, and therefore no more function as a marketing instrument that strongly appeals to spectators (Alsem, & Kostelijk, 2008; Keller, 1987).

The concept of a firm's identity is closely related to its core competence and resources. More precisely, an identity flows from the companies' superior competences

and resources (Wernerfelt, 1984). Likewise, resources must be heterogeneous and not easily mobile if a firm desire to turn the collection of tangible and intangible supplies into sustainable competence (Peteraf, 1993). In other words, a firm must create or develop valuable assets that are neither perfectly imitable nor substitutable without considerable effort to achieve a competitive advantage (Barney, 1991). Sensory services at sporting events such as music, foods, visual images do not meet those requirements to become valuable resources. A typical example that reflects the current usage of sensory elements in sports settings is probably music. Sports venues randomly play popular music just because people tend to have favorable attitudes toward a product or service with liked songs (Gorn, 1982). Those trendy tunes, however, neither represent the identity of the organization nor provide unique services.

The lack of understanding and appreciation in uniqueness and competitive advantage of sense-related resources further creates confusion between the two terms, sensory "marketing" and sensory "branding." Many scholars interchangeably use them, yet just providing unique sensory experiences does not guarantee to build strong brand identity and commitment. Without strong orientation of branding purpose, sports fans' perception of sensory experiences at a particular stadium or area may not be unique, specialized or differentiated from other competitors, which is against the core value and purpose of brand experience (Brakus, Schmitt, & Zarantonello, 2009). The following paragraphs elucidate the differences among sports marketing, sensory marketing, and sensory branding.

Chadwick (2005) defines sports marketing as a "process through which a contest with an uncertain outcome is staged, creating opportunities for the simultaneous

fulfillment of objectives among sports customers, sports businesses, participants and other related individuals, groups, and organizations." In regards to spectators' sensory experience, sensory marketing is defined further as the opportunity for sporting event venues to advertise their services with sensory stimuli in a sports-related context (Krishna, 2012). This sense-centric marketing is rooted in consumers' experience with a specific product or service. Unlike conventional marketing which promotes products or services based on their features and benefits (Choe, Lee, & Kim, 2014), sensory marketing emphasizes allowing consumers to try and experience the service or product with their five senses (Krishna, 2012). The architecture and decorations of a stadium, cheering sound and loud music from a public address (PA) speaker system, food and beverage choices available in concessions, unique smell of the physical space, and feelings of compression by other spectators and comfortable seats, these are all sensory components that are being used as a marketing means affecting spectator experiences (Gaffney & Bale, 2004).

Branding, on the other hand, is a more specific marketing strategy that aims to create an exclusive image. A brand is an asset that communicates meaning and identity that differentiates a product or services from competitors by involving a value-proposition with functional, emotional or self-expressive benefits (Aaker, 1991; Kotler, 2003; Keller & Lehmann, 2006). Now it is known that consumers search for and buy emotional experiences, and not just consume products and services alone (Brembeck & Ekstrom, 2004; Ratneshwar & Mick, 2005). If a product or service has unique image or brand embedded, it would be much more worthy for them to spend money. This concept has been extensively used in almost every field of study, and the sports industry is no

exception. In the academic debate on branding in sports, however, there seems to be a propensity to concentrate more on product brands than services brands. As such Shank (1999) defines a brand in sports as ''a name, design, symbol, or any combination that a sports organization uses to help differentiate its product from the competition.'' Based on this definition, many scholars have examined how to brand athletes (Arai, Ko, & Ross, 2014; Storie, 2008; Shuart, 2007), teams (Gladden & Funk, 2001; Grant, Heere, & Dickson, 2011; Ross, James, & Vargas, 2006), and sports organizations (Forster, 2006).

There has been no discussion of branding spectators' sensory experiences in sporting events, though Lee et al. (2012) made a noteworthy point of the necessity of conducting future research to explore the potential value of sensory experience in branding. Moreover, in sports literature, little attention has been paid to the invention of a brand and value creation through human senses (Payne, Storbacka, Frow, & Knox, 2009), whereas marketing literature overall stresses that sense-embedded experiences are effective ingredients for branding (Lindstrom, 2005; Hultén et al., 2011). Brand associations can be tangible, symbolic or both (Alsem & Kostelijk, 2008), which implies that the five human senses as intangible and figurative images can be employed to create signature brand associations, in turn, that generates an emotional linkage between a brand and consumers. As Keller and Lehmann (2006) stated, brand relationships and sports consumer experiences are essential research areas for further development of the field of study. The significance of the five human senses in creating multi-sensory brand experience thus seems to be the next emerging trend (Hultén, 2011).

This opportunity of branding using the five senses suggests that a variety of sensory features can be applied to represent spectators' holistic experiences. The next

question is then how to develop sensory capitals that could potentially build brand images. One possible answer to this matter is to harness sensory hallmarks of a particular point of space since a physical location certainly carries diverse sensory experiences (Diţoiu, & Căruntu, 2014). Many livable cities promote active communities, shopping, and entertainment with arts and culture to create desirable places where people enjoy spending time. The hospitality and tourism industry thus appears to already use multi-sensory resources in conjunction with the image of a destination. This multi-sensory approach is an important aspect of tourism because it enlightens the background necessary for developing tourist experience (Hirschman & Holbrook, 1982). Markwell (2001) argues that tourists' experience about a specific destination is highly associated with their senses. It is because they consume the place's atmosphere when visiting the destination (Echtner & Ritchie, 1993).

It is no surprise that most tour-related services are closely linked to the image of the accommodating place. The same attributes that are present at the destination are being strategically applied in airports, which are not mere accessing points to cities, but the integral part of the visitor experience consuming the towns. For instance, Changi Airport in Singapore includes gardens for which the local place is renowned. South Korea's Incheon International Airport is also considered as a global shopping destination that closely reflects the image of the city. Furthermore, at Munich Airport, travelers take delight in enjoying the taste and smell of drinks at a central beer garden located at the airport's entrance. Carolina Metropolitan Airport in South Carolina even exploits the southern image with the message "famously hot" to characterize the airport. The

mentioned examples incorporate the best sensory traits of their cities, and travelers

recognize them as part of their experience.

In a similar vein, sensory marks can be shaped for a sporting event with the

resources available at the local area by matching sensory images of the game and the

local region, thus resulting in five-dimensional brand experiences that place in sports fans'

soul and mind. Sports marketers should first identify those sensory elements, which will

eventually become sensory impressions of the event. For those places where such traits

do not exist, we can even create new features with the intention of branding (Gammon &

Robinson, 1997). Once the design of the experience is prepared, we can project the

sensory profile of the event, and then the congruence between the projection and the

perception by spectators should be measured accurately to match the profile consistent

with the audiences' perception.

2.4 RELATIONSHIP BETWEEN SPORTING EVENTS AND HOSTING PLACES

Considering the close relationship between a sporting event and its local hosting

site, distinctive characteristics of the locale could be useful resources for marketing

sensory experiences available in the game. Previous scholars consider sports venues to be

famous landmarks of local zones to which individuals attach identity and shared values

(Taylor, 1991). Since each place has its peculiarities that influence society and culture for

those individuals in proximity (Dinnie, 2011), sports fans and spectators appear to be

aware of unique images of local areas already (Getz, 2008; Wann, 2006). Hence, it is

sensible to presume that spectators' beliefs about a specific district or region are

associated with expectations that they have regarding a visit to the local sporting event.

Moreover, those local characteristics are original and not easily imitable and therefore can function as resources for the creation of competitive advantage.

Local sensory features could certainly be influential, but the way sports fans react to the regional attributes does not appear to be unitary. As an illustration, how residents feel about their "home game" is not identical to how non-local visitors perceive the image of the locality. Consequently, the two types of spectators, home fans and away fans, may have a different perception of sensory experience at the event, even if they are at the same physical place. We can guess that there are two distinct mechanisms of how local characteristics affect one's satisfaction with the overall sensory experience at the event. On the one hand, local fans might feel a "sense of home" by attending a sporting event in which they feel a heightened sense of their own culture (Giulianotti, 2004; Moore, 2000). The home concept for local fans reflects how they emotionally attach themselves to their chosen teams. Sports teams are also likely to be named after the specific place where they are located (Canter, Comber, & Uzzell, 1989). Sports venues, therefore, have become a symbol of the local area that represents the town and its residents (Taylor, 1991) so that supporters consider the stadium as a "symbolic home." This enables fans to become attached to their home teams, and at the same time, they build a favorable relationship with the local area (Bale, 2000). So, a sports team and its venue as a whole induce local fans to feel a sense of home.

The main premise of local fans' sense of home is that they define and value themselves concerning the groups and places that they belong (Hogg & Abrams, 2001), which is known as social identity. According to Tajfel (1981), the definition of social identity is "part of an individual's self-concept which derives from his/her knowledge of

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his/her membership of a social group (or groups) together with the value and emotional significance attached to that membership." This sense of belongingness stimulates a positive bias toward their identified groups (Tajfel, Billig, Bundy, & Flament, 1971) because individuals who identify strongly with their groups tend to interact more favorably with group members than non-group members (Nezlek & Smith, 2005). They are also likely to have a pleasant feeling just being in the group (Hornstein, 1976). Thus, local fans derive a sense of who they are as a fan from their psychological connection to teams and the local area, which in turn, positively contributes to their self-worth (Slater, Coffee, Barker, & Evans, 2014). In other words, such connection between a sporting event and its hosting city can be attributed to the fact that fans attach various meanings such as feelings of belongingness or rootedness, and personal memories to a home event, which are similar to those connected to their home places (Giulianotti, 2004; Moore, 2000). Local fans' positive feeling at their home event can be enhanced when their experience is highly congruent to the local image they already have in their mind. With perceptions of similarity, bonding, and belongingness with other fans, their self-worth and sense of belongingness could be enriched, and in turn, their overall satisfaction with the event experience can increase (Cameron, 2004).

On the other hand, non-local fans might want to experience an event that features stimuli different from their homegrown culture. Though visitors away from the local area may not feel a sense of belongingness, they can still be highly satisfied with the overall game experience. Sports venues offer multi-faceted sensory stimuli as vital resources for satisfaction through which spectators are able to have a touristic and authentic experience. As such, non-local spectators consume sporting events equally as fans and tourists,

whereby they have an "authentic experience" amid different surroundings (Sims, 2009).

Prior literature has shown that cultural experience in the context of tourism needs to be authentic as a new and unique experience of traveling (Crompton & McKay, 1997). Kim, Eves, and Scarles (2009) claim the authentic experience can function as a critical factor in attracting tourists' satisfaction. For instance, when it comes to sound in a sporting event, research reveals how music has facilitated to shape cultural understanding of mediated sport in the context of cricket in the West Indies (Midgett, 2003) and rugby in New Zealand (Crawford, 1985). These studies inform us that listening to brand music in a stadium allows local fans to feel a sense of home with the local brands, and for non-local fans, the music can function as a medium to efficiently introduce unique cultural information. Regarding tasting food in tourism, Fields (2002) indicates that food acts as a cultural motivator since experiencing new local food is one of the most dominant ways to experience an authentic culture. It has been known that local food and beverages have been penetrated in tourists' mind as an essential part of the local culture (Kim et al., 2009; Kivela & Crotts, 2006). In that respect, tasting local food in a sporting be considered as an authentic tourism experience because it serves as both an authentic cultural activity and entertainment.

In short, authentic experience in a sporting event with multi-sensory stimuli can be an influential driving force that draws non-local fans and also enables them to enjoy sports games more pleasantly. Those of who travel primarily to support their home team may also anticipate the chance of exploring new places while they are staying there. The touristic element, in this case, would act as a secondary reinforcement for the event resulting in the coalition of sport and tourism (Gammon & Robinson, 1997). The

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assumption of sports as a touristic product is also sustained by Smith (2006), who proposes that sporting events have many positive attributes that cause positive implications for the destination cities. As such destinations can exploit the images of the games as a marketing medium to differentiate themselves in the tourism market (Chalip & Leyns, 2002). It is also conceivable that the destination provides an instrument for the promotion of events. Images of a place, thus, can play an essential role in sporting event choice as well as repeat visitation to the destination and the event because of their meaning to consumer behavior (Gartner, 1993).

2.5 IMAGE FIT BETWEEN SPORTING EVENTS AND HOSTING PLACES

The secure connection between the two areas of interest is profoundly meaningful as sports games can produce numerous tourists and at the same time, famous destinations may also attract new event spectators (Dimanche, 2003). It is presumed that there is a common image overlap between events and the hosting areas, which can be utilized as a means of marketing communications (e.g., Gwinner, 1997; Hallmann & Breuer, 2011; Kaplanidou, 2007; Lee et al., 2005; Musante, Miline, & McDonald, 1999; Xing & Chalip, 2006). That consistent or congruent image connection is called "image fit." Baumgarth (2000) first defined the term image fit as subjective evaluation of the relationship between two image objects. However, this definition is rather vague, and also, according to Grohs and Reisinger (2005), the concept of image fit is part of an image transfer process. Therefore, we first need to account for what image transfer is for having a better understating in image fit.

Zentes (1996) is one of the scholars who initiated the notion of image transfer. He investigates the concept from a neutral standpoint without having particular areas of

application of the phenomenon. His definition of image transfer is rather comprehensive as "the transfer and reinforcement of object association between objects of different categories." Building upon this, Glogger (1999) conceptualizes image transfer taking marketing-specific application into consideration. Glogger demonstrates four critical characteristics of image transfer: 1) an image transfer is a reaction in the mindset of individuals that occurs in response to an action of marketers, not a measure or action taken by a company, 2) an image transfer consists of both the transfer of new relations that had not been associated with the object, but also the strengthening of already existing linkage, 3) an image can be transferred or reinforced in both connotative denotative object associations, 4) an image transfer is characterized as reciprocal, which means a transfer can take place for two objects in both directions.

Overall, an image transfer is a reciprocal process that generally take a significant amount of time. An image fit is however part of the process or a special condition in which images from two distinct domains are congruent each other (Gwinner, 1997; Musante et al., 1999). When two images fit well together, the congruity would catalyze the transfer process, or individuals could conceive the fit between two objects even before the transfer process is complete. For instance, the Atlanta Falcons recently released a song called "11 birds" in collaboration with an Atlanta-based hip-hop trio called Migos. After the musical content produced by the local musicians was introduced to local events, the image of the music was quickly transferred to the home games and became part of the event image. Because the song effectively represented the team with the lyrics, genre, and voice (the artists), fans of the team easily perceived the fit between the music and the location (Ballouli & Heere, 2015) even before the image transfer from

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the place to the event was solidified. In this example, the image fit was generated within the process of the image transfer.

It is, however, also probable that an image transfer gives rise to an image fit after the process is successfully established (Gwinner, Larson, & Swanson, 2009). For example, spectators who attend the Liverpool's soccer games at Anfield stadium expect to hear the song "You will never walk alone." They can now perceive an image fit between the song and the local community although the two objects do not share strongly congruent images. This arises because an image transfer (in this case from the event to the local community) has established a convincing tie through an extended period of time. Unlike the Falcons' example, the image fit here is the result of the image transfer. Now the song is internalized in Liverpool fans' mind, and it is part of the community, which in turn habitually remind spectators of the local feeling. Therefore, the musical content is not just part of the event experience, but also belongs to the local experience. In short, an image fit is not a time-series process. Instead, it is a static condition because of two reasons: an awareness of congruent and overlapped images or preconceived perception after the lengthy process of an image transfer.

Researchers have examined the reciprocal image impacts between sporting events and destinations (e.g., Gwinner, 1997; Hallmann & Breuer, 2010; Kaplanidou & Vogt, 2007; Lee et al., 2005; Musante et al., 1999; Xing & Chalip, 2006). Xing and Chalip (2006) demonstrate the evidence of interrelation of sporting events and destination images by testing two separate measures of image scales. The results suggest that an event make a significant impact on the destination image if the event has a higher profile than the destination. In addition, Gwinner (1997) and Musante et al. (1999) investigated

the concept of image fit with celebrity endorsement in brand research. Their primary concern was how to increase the perceived sponsorship fit and how the enhanced fit affects the brand and sports favorability. Hallman and Breuer (2010) then measured the fit between sports events and the destination image by analyzing multi-attributive fit index. The mentioned studies used indirect measurement with two respective scales instead of developing one instrument that directly quantifies the fit level. Previous instruments for the evaluation of image fit were either based on an additive fit index (Gwinner & Eaton, 1999; Koo, Quarterman, & Flynn, 2006) or the Euclidian distance between two image scales (Hallman & Breuer, 2010; Musante et al., 1999). Hence, there is a lack of measurement tool that directly assesses how sports consumers perceive an image fit between sporting events and destinations.

A more significant issue is that no study has measured the level of fit regarding the sensory aspect of images. Images are referred to as "pictures in the mind's eyes," but they could have a broader meaning of any mental representations such as sounds in the mind's ear or the taste, smell, and tactile perception (Downs & Stea, 1977). This definition indicates images or metaphors that represent objects may not be limited to just visual components but rather go beyond the sight sense. The notion of multi-sensory images also enables two separate objects to have joint or shared sense-originated image capital. For example, fans who attend a Philadelphia Eagles game may expect to eat local food such as a Philly cheesesteak, whereas fans who attend a Houston Astros game may find that a mechanical bull enhances their cognitive concurrence in the sporting event. Many professional sports franchises now closely work together with local musicians in an attempt to create a sonic signature that adequately represent the teams (Ballouli & Heere,

2015). We can even utilize a music genre in a specific city as such New Orleans is famous for jazz music and Nashville is known to be a country music center. Regarding the tactile sense, many sports fans arguably enjoy the extreme condition of an event (e.g., fans who highly identify with the Green Bay Packers may adore being exposed to the very cold environment at Lambeau Field). Those unique destination-based tactile stimuli fit may enrich spectators' sensory experiences.

When fans cognitively match sensory components of an event and its destination, which appeal to the visual, auditory, gustatory, olfactory, and tactile senses, an image fit would be likely to happen in their mind. Visual designs, music, food selections, unique smells, and tactile inducements are all emotional factors that can be incorporated into the sports event experience. The concept of SIF, as the result of joint image associations between a sporting event and the hosting destination, is of great interest now. Despite the considerable theoretical development and empirical speculation, however, no scholarly work has examined the sensory image congruence in the context of sporting events and host destinations. Therefore, the field apparently lacks theoretical direction in dealing with sensory resources in a sporting event as a means of marketing communication.

2.6 IMAGE DETERMINANTS OF DESTINATIONS

To further analyze the phenomena of an image fit between destinations and sports events, it would be a necessary step to review how images of the two entities have been measured. Destination image in tourism has been viewed as an essential concept in understanding the mechanism of tourists' choice of destination as well as destination positioning strategy (Son & Pearce, 2005). Numerous scholars have conducted destination image studies for the last two decades. Main themes of those studies include

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components of destination image (Dann, 1996; MacKay & Fesenmaier, 1997) and destination image measures (Dann, 1996; Echtner & Ritchie, 1991; 1993; Gartner, 1989; Son & Pearce, 2005; Zhang, Fu, Cai, & Lu, 2014). Mackay and Fesenmaiser (1997) demonstrate in their study that perceived landscape of an area as well as familiarity with the place functions as a significant predictor of the perceived destination image. In addition, Baloglu (1997) made an attempt to describe destination image with the six identified image factors (adventure, nature, and resort, urban entertainment, budget and value, history and culture, friendly environment, and active outdoor sport). Considering a methodological approach, Echtner and Ritchie (1991) provide a more definite and specific conceptual framework that offers a reliable and valid measure of destination image. Likewise, in 1996, Pearce and Black also contend for the necessity of having theoretically consistent approaches to measure destination image. Their findings exhibit that images of a place can be measured not just by the physical appearance or appeal of destinations, but also by the location's affective and sensory assets, which are associated with the exterior of the place for meeting visitors' psychological needs.

Notwithstanding these copious studies, destination image studies have been criticized for the lack of a consistent conceptual framework (Baloglu & McCleary, 1999; Echtner & Ritchie, 1993; Gallarza, Saura, & García, 2002; Gartner, 1993; Son & Pearce, 2005). Zhang et al. (2014) then attempt to draw an informative conclusion in destination image measures through a meta-analysis in which they combine existing multi-dimensional nature of destination measures and categorize them into a cognitive image, affective image, cognitive-affective joint image and overall image. The newly organized structure reveals that the cognitive image has been the dominant type of investigation

regarding destination image measures. The cognitive image measures refer to tourists' perception on various attributes of the destination such as infrastructure, environment, and service quality (Beerli & Martín, 2004; Gallarza et al., 2002) whereas individuals' thoughts and emotions toward a certain area (affective image) may play a significant role in forming an image of the place as well as the physical attributes of the place. A joint cognitive-affective approach is operational more than definitional; for example, in San Martín and Del Bosque's (2008) study, destination image was operationalized as a latent variable that consisted of cognitive and affective attributes. Even though the integrated approach has been adopted in an attempt to capture destination image in a better way, cognitive-affective joint image failed to demonstrate a consistent effect on tourist loyalty in Zhang et al. (2014)'s study. Lastly, the overall image is tourists' holistic impression of a destination (Echtner & Ritchie, 1991) measured with a single rating item (Bigne, Sanchez, & Sanchez, 2001).

Reviewing the literature, it is possible to conclude that there is no unified understanding with regard to a definition of destination image because of the uniqueness of each destination. Affective aspects such as how visitors feel about the destination have been overall underestimated and especially the importance of sensory images in destination research has been overlooked (Son & Pearce, 2005). Lately, there is a new trend where researchers pay close attention to the role of the affective dimensions of destination image in conjunction with the human senses. As Echtner and Ritchie (1991) state, imagery processing counts not only on cognitive but also on affective attributes, and ultimately, complete impressions encompassing all of the five human senses may be able to capture the real image of a destination. Thus, it seems to be necessary to add a

multi-sensory assessment as part of destination image measure. By far, there is only one study that measures the sensory image of a destination (Son & Pearce, 2005). The study took an innovate approach to measuring sensory images of the destination using unstructured as well as structured questioning. Photographs were used to evaluate visual images of Australia (structured), and a single open-ended question (unstructured) was developed to measure other types of sensorial images. The study though still concentrated on destination-specific measure especially about the nature-based attributes of the target city rather than multi-faced sensory images. Thus, there is still lack of a dedicated instrument for measuring the multi-sensory aspects of destination image.

2.7 IMAGE DETERMINANTS OF SPORTING EVENTS

Sports event images have not been as thoroughly examined as destination images. Gwinner (1997) defines an event image as "the cumulative interpretation of meanings or associations attributed to events by consumers." In a later empirical study, Gwinner and Eaton (1999) applied a set of adjectives to measure the event image and the sponsoring brand image. A comprehensive examination of their adjective scale unveils that at least six of the 20 attributes (e.g., calm, leisurely, slow, fast, exciting and monotonous) represent the activity dimension identified by Mehrabian (1980), Foxall (1996), and Osgood, Suci, and Tannenbaum (1957). Other adjectives such as aggressive, masculine, and wild appear to represent the potency dimension. About sports event image, however, Kaplanidou and Vogt (2007) note that there is a lack of definition. Nonetheless, Scholars suggest that the principles of a destination image as "an image consists of affective, cognitive and joint components" can also be applied into a sporting image to determine its image. For example, Koo, Quarterman, and Flynn (2006) and Lee and Cho (2009)

propose that an event image can be evaluated emotionally and cognitively. However, those two works did not explicitly develop a conceptual framework for measuring a sports event image.

Regarding the conceptualization of sporting event image, only a few scholars have attempted to identify essential determinants of such images. Kaplanidou (2009), for instance, show in her qualitative study that a sports event image could encompass emotional, organizational, environmental, historical, social and physical attributes. These descriptions can also be classified into affective and cognitive components. Different variables were utilized in previous research to assess these components in a quantitative manner (Baloglu & McCleary, 1999; Ferrand & Pages, 1996; Gwinner & Eaton, 1999; Koo et al., 2006). The affective elements were measured with scales developed by Russell and his co-workers (Russell, 1980; Russell & Pratt, 1980). When it comes to measuring cognitive components, a few indicators have been used in previous research such as popular/reputation, atmosphere, international traits (Echtner & Ritchie, 1991; Ferrand & Pages, 1996; Schlattmann et al., 1996), nature and natural characteristics (Echtner & Ritchie, 1991; San Martín & Del Bosque, 2008), and cultural aspects or infrastructure (Echtner & Ritchie, 1991).

Contrasting to destination image studies, sporting event image research was not strictly limited to just affective and cognitive aspects of consumer perception. Some researchers took a broader view in which they used sensory stimuli as an experience creator (Lee et al., 2012). It was the first attempt that explored what constitutes the five types of sensory experience in a baseball game. Their inquiry was firstly originated from the term "servicescape" by Bitner (1992). The term represents that the physical

environments of a service venue would affect individuals' behaviors regarding their intention to stay, spend money, and return. Wakefield and Sloan (1995) then hypothesize that stadium attendees would be similarly influenced when consuming sporting events. By developing the term "sportscape," they identified factors that are believed to be prominent to spectators' evaluations of their stadium experiences include parking, stadium and amenity hygiene, crowding, fan control, food, and service. Finally, Lee et al. (2012) elaborated this concept by taking sensory experience into consideration and then coined the term "sensoryscape." The sensoryscape scale is a combined construct that represents spectators' stadium experiences with the five types of sensory image items including 1) sight dimension items: a stadium's architecture, landscape, sightlines, scoreboards, decorations, and colors, 2) sound dimension items: the sound of cheering, the stadium's sound system, the stadium's announcer, and its music, 3) touch dimension items: physical contact with other spectators, comfortable seating, and the spatial arrangement of the aisles and seats, 4) smell dimension items: a stadium's unique smells, past and pleasant memories evoked by the stadium smells, crowd smells, stadium food smells, and tailgate party smells, and 5) taste dimension items: a wide range of food and beverage choices, the taste of stadium food, psychological taste, and an escape from everyday life by eating at events.

The instrument was an innovative product in sports marketing in a sense that image components of only one or two types of senses may not draw the full picture of the multi-sensory nature of event experiences. The sensoryscape scale therefore contributed to the understanding of sensory image as a multi-dimensional construct. Although Lee et al.'s (2012) study was very thought-provoking by way of exploring sensory aspects of

event images, it lacks further discussion of suggesting a way to design or develop sensory

images. As such, the field is still in need of theoretical and practical direction in dealing

with sensory contents as a means of marketing communication.

2.8. EFFECTS OF SIF ON SPECTATOR BEHAVIOR

Sensory experiences at live events are known to positively affect overall spectator

satisfaction (Lee et al., 2012). This relationship could be enhanced when the experiences

are congruent with a destination image. The premise of SIF is in reference to cognitive

dissonance theory, which states that individuals aspire to seek out congruence between

their beliefs and behaviors for the sustainability of self (Festinger, 1957). Cognitive

dissonance occurs when individuals have views and feelings toward an object that are

inconsistent or in conflict with each other. If the image that individuals have of an object

is congruent with their preconceptions, they will experience less amount of cognitive

dissonance, and thus, form more positive attitudes. In the sports circumstance, fans'

beliefs about a specific city or region might be associated with expectations they have

regarding a visit to the local sporting events. It is then sound to assume that the higher the

match between sports fans' perceived event and destination images is, the more likely

they are to have a favorable attitude toward their experiences. Furthermore, Crompton

(1979) also demonstrates that the less the discrepancy between actual and perceived

images, the more the likelihood that an individual will visit a certain place. This implies

the level of SIF may also influence spectators' revisit intention of sports events.

Familiarity can be another significant factor related to the SIF. According to

Baloglu (2001) familiarity refers to a combined construct of previous knowledge and

experience of specific objects. Sports fans gain knowledge of venues and their belonging

places from direct experiences or through constant search before attending. (Bloch,

Sherrell, & Ridgway, 1986). That information is stored in long-term memory and, as a

result, existing knowledge structures become shaped (Bettman, 1979; Ratchford, 2001).

Existing knowledge then assists individuals' evaluation of the attractiveness of any event

by retrieval of information linked to the qualities and attributes of the event (Ratchford,

2001). These previous knowledge and experiences combined may influence spectator's

perception of the level of SIF as familiarity may allow spectators to link particular images

of the local area and events. Consequently, familiarity may function as an indicator of the

perception of SIF. For example, if event attendees' experiences match their expected

images of the city based on existing familiarity, then fans may feel a high degree of event

image/local image fit. However, if visitors do not have such existing experiences or

knowledge regarding the local place, it would not be plausible for them to formalize any

associations or fit between the event and the local area.

The limitation of this connection, however, is that it is hard to assume a linear

relationship between existing familiarity and the SIF. The more someone knows about

the city, the more he or she is likely to be judgmental, which means that familiarity may

affect how accurately individuals evaluate the level of fit. However, a high level of

familiarity does not always lead to the perception of high fit. On the other hand, if we set

familiarity as an outcome variable instead of an indicator, it would be logical to assume

that the more an event incorporate local contents (high SIF), the more spectators get to

know and become familiar with the city (Alba & Hutchinson, 1987, Rao & Sieben, 1992).

As such, the extent of sports fans' "post familiarity" with the local material might be

affected by the perceived level of SIF. In brief, having an experience with abundant local-

based sensory stimuli can provide spectators with opportunities to learn the locality that eventually help them be more familiar with the cultural contents of the local area.

Overall, researchers have made an effort to combine sporting events and destinations on the basis of the term image fit (Hallman & Bruer, 2010; Xing & Chalip, 2006). In the meantime, scholars in both areas have realized that consumer experiences are generated not just from what we see (Lee et al., 2012; Son & Pearce, 2005), yet the multi-sensory nature of human experiences implies an image formation is attributed to all five types of senses. Then, sensory experiences that are congruent with a destination image may enhance the phenomenon of image fit. Despite the significance of the idea, sensory image congruence in this respect has not been adequately investigated, and therefore research on the topic of SIF is still in its infancy. The field is consequently in need of a theoretical direction for capitalizing on destination-based sensory resources in a sporting event as a means of marketing communication. Most of all, the fact that we do not have an appropriate instrument for measuring the sensory experience while considering its fit with destination image hinders researchers from exploring the potential outcome of SIF. Hence, the next step would be to create a reliable and valid instrument to measure and quantify the idea of SIF.

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CHAPTER 3

METHODOLOGY

3.1 SCALE DEVELOPMENT PROCESS

The development process of the SIF scale was composed of six stages based on the work of Churchill (1979), and Hinkin, Tracey, and Enz (1997). In the first stage, the domains of the scale were defined via focus groups, those which constitute the qualitative part of the study. Sample items were then developed in the second stage. In the third stage, content adequacy of the items was assessed with a panel of experts. The proposed scale items were revised based on the result of the expert review. Also, a pretest was conducted with non-expert respondents to evaluate the consistency between the items and the identified domains of the scale. In the fourth stage, the retained items were presented through online survey platform Amazon Mechanical Turk (MTurk) for the first data collection with which an exploratory factor analysis (EFA) was conducted. Initial reliability of the scale was also evaluated. In the fifth stage, the second data set was collected through the same online survey platform, but a different sample was gathered to conduct a confirmatory factor analysis (CFA). Lastly, in the sixth stage, internal consistency and validity of the scale were analyzed providing a basic standard that can be used for testing multiple types of validity of the proposed scale further in future research. Theoretical and practical implications were also given at the end of the study.

3.2 STAGE 1: DEFINING SCALE DOMAINS

The first stage specified the domains of the scale. Hinkin (1995) suggests that there are two basic approaches to item generation, deductive and inductive. The inductive method is normally utilized in case the phenomenon of interest is unfamiliar or little theory exists to explain and support the study theme. On the other hand, the deductive scale is based on a theoretical definition of a construct that is also used as a reference for the generation of items (Schwab, 1980). Although the concept of an image fit provides substantial implications, it was still not clear whether a SIF would happen in all five types of sensory images, especially in the context between sporting events and destinations. Therefore, an inductive approach through the analysis of individual responses collected during the four focus groups was used in the present study. Focus groups are regarded as an effective means of confirming whether notions that underlie constructs of interest are acceptable or understandable to participants. Focus groups can also be a suitable source to comprehend participants' terminology about a concept (DeVellis, 2012). According to Stewart, Shamdasani, and Rook (2007), "focus groups are particularly useful for exploratory research when rather little is known about the phenomenon of interest. As a result, focus groups tend to be used very early in a research project" (p. 41). Given the dearth of research on sports fans' perception of sensory image and the explorative nature of this study, focus groups were appropriate to identify the concept and scope of scale domains in participants' standpoints (DeVellis, 2012; Spector, 1992) that can help define the domains in the study.

3.2.1 FOCUS GROUP PARTICIPANTS AND PROCEDURE

A Focus group require participants with shared experiences as they pertain to the research questions and topics of interest (Liamputtong, 2011). In this study, the required experience was "attending live sporting events." Since no demographic or geographic delimitation was involved, anyone who has a history of attending live sporting events was eligible for participating in the focus group discussions. Participants of the first group session were obtained through undergraduate classes at a large research institution. The first group consisted of eight students, and the average age was 20, 50% were female. Because of their age limit, they might not have extensive experiences at multiple sports venues. The next session was therefore conducted at the same university with eleven masters students, 45% were female. The two additional meetings were conducted with staff members those who were recruited through the email Listserv of the same university. The number of participants was six and eight, and the average age of participants was 35 and 41 respectively. None of the staff members were personally associated with the researcher nor were they previously informed about the study. Consequently, a potential bias was minimal.

Concerning the issue of data saturation, scholars define the concept as the point from which no additional information is collected. Krueger and Casey (2009) state that the acceptable number of focus group sessions are three or four with each type or category of individual. It is recommended that a researcher determines whether he or she have reached saturation after conducting first three or four groups. During the first sessions, participants identified themes of the SIF scale and its dimensionality. Participants then provided similar statements in the second and third meetings as such the

themes were reoccurring. The fourth session confirmed that no new information was available regarding the domains and structure of the instrument. More data could have been collected with additional focus group meetings as new participants would likely to have different experiences at different sporting events and venues. Presumably, however, the newly gathered data would not add further implication on the already identified themes and the structure of the scale proposed by previous participants. Thus, the focus groups appear to reach a point of saturation as Krueger and Casey (2009) describe.

Participants were asked to visit a scheduled conference room in the research institution where six to 11 people spent 60 to 90 minutes voicing their opinions about sensory images of a sporting event and the destination. The moderator explained the rules and process of the focus group discussion first and then started the activity with an icebreaker question to enhance participants' comfort. Questions regarding sensory images were given, but participants had chances to express their opinions beyond the scope of the questions. The entire discussions were audio recorded with the permission of the participants. In order to reinforce the safety and confidentiality of focus group members, topics discussed in the group remained confidential and also the anonymity of participants was protected by labeling each participant with numbers (e.g., the third participants of the first group was label G1-P3) rather than names.

3.3 STAGE 2 : SAMPLE ITEM GENERATION

Due to the fact that no previous instruments exist on SIF of a sporting event and its destination, items were generated from the previous qualitative investigation with four focus groups. The focus groups from the previous exploratory stage were the foundation for determining the structure of the scale and individual items. Extensive discussions

revealed evidence of whether participants could conceptualize certain type of sensory fit between an event its hosting destination. Regarding individual items, the researcher followed Hinkin and Schriesheim's (1989) basic guidelines to assure that each item contains only a single meaning, not double-barreled. It was also important to have items consistent with their pertinent dimensions being sure not to mix items across dimensions.

There is no particular rule of thumb concerning the number of items to retain. A scale needs to be parsimonious consisting of the minimum number of items that sufficiently measure the phenomenon of interest (Thurstone, 1947). Scholars have demonstrated that acceptable reliability can be obtained with three to five items per scale (Harvey, Billings & Nilan, 1985; Hinkin & Schriesheim, 1989). Schmitt and Stults (1985) also argue that we can minimize response bias by keeping a measure short rather than long as boredom and fatigue would not affect responses. Prior literature, in general, suggests that a quality scale comprised of minimum three to maximum six items is considered appropriate for most constructs.

3.4 STAGE 3: CONTENT ADEQUACY ASSESSMENT

Once the scale items have been created, the next step is to pretest the items for content adequacy. Evaluating content adequacy before data collection provides support for construct validity because it enables the removal of items that may be conceptually irrelevant. (DeVellis, 2012). Researchers have introduced several content validation methods in the research methods literature, and an expert review is recommended as a general technique of item generation to test the content validity of a new scale (Brislin, 1986). Choemprayong and Wildemuth (2009) also recommend consulting with experts in the related field to generate items. Common to all of these suggestions is that expert

review improves content validity regarding items chosen as an item pool. Therefore, the initial items of this study were first refined and edited by independent academic faculty members, selected on the basis of their research and consulting.

Another standard method is to ask respondents to classify or sort items based on the consistency between the items and their relevant construct (Nunnally, 1978). In this technique, respondents are presented with construct definitions without titles and are requested to match items with a corresponding factor. This approach is beneficial for testing whether naive respondents or non-experts in the content domain can easily read and understand the definition of scale and items. The problem with this method is that it is hard to determine an acceptable agreement index before administrating the items. Hinkin et al. (1997) thus recommend a more rigorous way based on analysis of variance (ANOVA) techniques in which respondents rate each item on the extent to which the items are consistent with each dimensions of the scale. To determine if the items are categorized as intended, the mean scores of all items on each dimension are computed. Then, a comparison of means across all dimensions is calculated to evaluate whether the mean score of an item is significantly higher on the correct dimension.

In this study, a total of 105 university students at a large research institution participated in the content adequacy assessment. Students are quite often used as valid respondents during this stage of scale development as long as the scale is not targeting a specific demographic (Hinkin et al., 1997). Paper-based surveys were administered during a regular class time, and it took approximately 15 minutes to complete. Participants were given both spoken and written instructions before filling out the survey, and the survey did not include any personally identifiable information. The respondents

rated each of the 26 items on the extent to which the items were consistent with the dimensions of the SIF scale. Responses ranged from 1 (strongly inconsistent) to 7 (strongly consistent). A brief description of each SIF dimension, but not the title of the dimension, was printed at the top of each page of the survey followed by the list of 26 scale items (see Appendix B for the questionnaire). The items were also randomly placed on the list as an effort to control response bias due to item orders.

3.5 STAGE 4: FIRST DATA COLLECTION AND ITEM ANALYSIS

After conducting the content validity evaluation, the researcher retained a set of items that have been carefully invented and reviewed. The retained items were then presented to an appropriate sample through online survey platform Amazon MTurk for the first data collection with which EFA was conducted. The objective was to examine how well those items represent the psychometric properties of the new scale and to reduce the initial items to a smaller and more parsimonious set of variables. Initial reliability of the scale was also evaluated with several reliability measures.

3.5.1 PARTICIPANTS

The population of the current study was sports consumers who attend live sporting events. Thus, anyone who has a history of attending live sporting events was entitled to participate in the study. Although the screening and selecting qualified participants were not very restrictive, potential respondents still had to clearly remember the events they attended in order to evaluate the developed sensory items based on their experiences. Therefore, the researcher selected respondents who visited any live sporting events within the last three months from the survey participation. The three month period might be too long, but the decision of which participants should be involved in the

development of a scale depends upon the feasibility of recruiting qualified respondents (Spector, 1992). The researcher had a concern that if the period was shortened to less than a month, it might not have been possible to recruit enough number of participants in a timely manner. In addition, the three reminder questions- 1) What was the live professional sporting event you attended most recently? 2) When was the live professional sporting event you attended most recently? and 3) What was the location of the live professional sporting event you attended most recently?- forced respondents to retrace their memory. Another delimitation of the sampling strategy was age. Participants whose age was younger than 18 were filtered out because the researcher envisioned to select respondents who have enough experience in live sporting events and who independently attend games. No other restriction was applied, such as types of sports or geographic locations with the intention of maximizing external validity of the scale.

A total of 185 sports consumers answered the questionnaire regarding their experiences at a variety of live sporting events ranging from the four major leagues to the Ultimate Fighting Championships (UFC). Forty-one percent of the respondents stated that they attended the live event within one month from the survey participation and thirty-two percent reported the event was within two months. Over half of the respondents were between 30 and 49 years of age (55.1%) and other age groups were 35% of 18 to 29, 7% of 50 to 69, and 1% of 70 or older. Fifty-six percent of the sample was male, and the racial breakdown of the participants was 70% Caucasian, 12% African American, 7% Hispanic, 9% Asian, and 2% self-identified Others. Overall, demographics of the sample were not highly discrepant with the population of sports fans in the United States ("Demographics of Sports Fans," 2017).

3.5.2 SAMPE SIZE

There has been considerable discussion over the sample size needed to carry out tests of statistical significance in EFA. Some scholars recommend an exact number or range of participants. For example, Nunnally (1978) recommends 300 as an adequate number of respondents for an EFA. Spector (1992) suggests a range of 100 to 200 participants. Other researchers determine the sample size needed to achieve robust results based on the number items. For example, Rummel (1970) recommends the item-to-response ratio of 1:4 and Schwab (1980) suggests the ratio of 1:10 for a scales to be factor analyzed. There is no generally accepted "rule of thumb," and strict rules concerning sample size for EFA have mostly disappeared. Much research has demonstrated that adequate sample size is mainly determined by the characteristics of the data (MacCallum, Widaman, Zhang, & Hong, 1999). As long as item correlations are reasonably high enough, a small sample can be used for an accurate analysis. One study revealed that a sample size of 150 observations is sufficient in most cases to obtain a robust solution in EFA (Guadagnoli & Velicer, 1988). The sample size used in the study was 185, which exceeded Guadagnoli and Velicer's recommendation (1988) and also within the range of Spector's suggestion (1992) of 100 to 200 participants preventing potential data analysis problems.

3.5.3 INSTRUMENT AND DATA COLLECTION PROCEDURE

An online survey was created using research software Qualtrics (see Appendix D for the survey), which automatically generated an anonymous hyperlink. The hyperlink was then distributed through an online survey platform Amazon Mechanical Mturk. A total of 185 participants completed the survey receiving $1 each as compensation. The

SIF scale was measured with the 26 items confirmed in the previous qualitative stage. Participants rated each item on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Two screening questions were also asked. One screening question was, "Have you attended any ticketed professional sporting event(s) within the last three months?" to check participants actually attended a sporting event. The question specified "professional sporting events" in an effort to avoid potential issues by including small or amateur events where spectators sometimes do not have enough sensory stimuli to enjoy. Participants whose age was younger than 18 was also screened out to select respondents who have enough experience in live sporting events and who independently attend games. A few demographic questions were also included at the end of the survey. Each participant received a confirmation code at the end, which functioned as an indicator for the researcher to select or screen out respondents. The data were then exported to SPSS version 25 for subsequent analysis.

3.5.4 DATA ANALYSIS

After the data gathering, it was essential to examine whether the items adequately constitute the scale. Data examining through factor analysis is a necessary step in determination of the viability of the scale. Two types of factor analyses are available for the scale development process: CFA and EFA. The exploratory one is typically used to reduce the items into a smaller and more parsimonious set of variables. The confirmatory type is used to evaluate the factor structure by statistically testing the significance of the model and the relationships among items and scales (Hinkin et al., 1997). Both types of analyses can be used in scale development, yet CFA is more widely used for a deductive method. (Kline, 2013). Since the researcher used an inductive approach, EFA was helpful

for identifying the structure of the scale. Moreover, focus group participants as well as the expert panel noted a concern that the taste fit might have separate dimensions of food and beverage. Therefore, EFA seemed to be a required course of action to take in the scale development process. The EFA procedure included the determination of the number of factors to retain with the usage of multiple stathstical techniques and the examination of item loadings.

The internal consistency scores of the scale items were also estimated through several reliability measures with the first data set. First, Cronbach's alpha estimation was utilized to assess the consistency among items in each factor. Internal consistency level is considered satisfactory with coefficient alpha above .70 (Cronbach, 1951). Second, item to total statistics were measured. An acceptable item to total correlation value is .5 or greater (Hair, Black, Babin, & Anderson, 2010). Finally, inter-item correlations were examined for each factor. An acceptable inter-item correlation value should fall in the range of .3 to .8 not to hurt the reliability of the scale (Hair et al., 2010).

3.6 STAGE 5: SECOND DATA COLLECTION AND ITEM ANALYSIS

Although an EFA was performed to examine the extent to which the scale items assess the content domains, a significant limitation of the analysis is its incapability to statistically quantify the model fit of the factor structure (Long, 1983). Unlike CFA that specifies the structure of the scale and the relationships among the variables of interest in advance, EFA only provides a post hoc interpretation of the outcomes (Hinkin et al., 1997). Consequently, items that load fittingly in an EFA sometimes show a lack of fit in a model with a different sample due to lack of external consistency (Gerbing & Anderson,

1988). It is recommended that a scale developer must perform a CFA regardless of whether an exploratory analysis have been conducted or not (Hinkin et al., 1997).

3.6.1 PARTICIPANTS AND SAMPLE SIZE

The same sampling framework was applied to recruit qualified participants: adult sports fans who had a recent history of attending live sporting events. In the previous data collection, eligible participants were those who attended any live sporting event within the last three month, which was due to potential time constraint of recruitment. However, it took much less time for collecting the satisfactory number of complete surveys in the previous stage. Thus, in this stage more rigorous restriction as "within the last month" was applied to the screening process.

When it comes to sample size, the same rules can be applied to decide appropriate number of observations in both CFA and SEM (Kline, 2013) since CFA is a type of SEM that is designed to assess the goodness-of-fit of models. No consensus exists in the literature about the satisfactory number of observations, but scholars at least present some evidence that a simple CFA or SEM model could be rigorously tested even if the sample size is relatively small (Hoyle, 1999; Hoyle & Kenny, 1999; Marsh & Hau, 1999). Quite often, 100 to 150 is considered the minimum sample size (Tabachnick & Fidell, 2001; Ding, Velicer, & Harlow, 1995). Other researchers recommend a larger sample size of at least 200 (Boomsma & Hoogland, 2001; Kline, 2013). In the situation of no missing data, an acceptable sample size for a CFA model can be about 150 (Muthén & Muthén, 2002). The sample size is often also considered in relation to the number of observed variables. Bentler and Chou (1987) propose that a ratio of 5 cases per parameter to estimate would be sufficient when latent variables have multiple indicators with normally distributed data.

Another widely accepted direction is ten observations per an item as adequate sample size (Nunnally, 1967). The researcher took a conservative approach collecting 510 observations, which meets all of the guidelines mentioned above.

Fifty-six percent of the respondents were between 30 and 49 years of age and other age groups were 33% of 18 to 29, 10% of 50 to 69, and less than 1% of 70 or older. Sixty-six percent of the sample was male, and the racial breakdown of the participants was 73% Caucasian, 12% African American, 6% Hispanic, 8% Asian, and 1% self-identified Others. Demographics of the sample were consistent with the population of sports fans in the United States ("Demographics of Sports Fans," 2017).

3.6.2 INSTRUMENT AND DATA COLLECTION PROCEDURE

A new questionnaire was distributed through MTurk (see Appendix E for the questionnaire). The same two screening questions used in the first data collection were also presented to check whether respondents were old enough and recently attended sporting events. Total 510 participants completed the survey receiving $1 each as compensation. The questionnaire for the second data analysis included four measures: the SIF, event experience satisfaction, revisit intention, and post familiarity with the local culture. Demographic information was also gathered. The SIF scale was measured with the 26 items evaluated in the previous EFA stage. Participants rated each item on a 7-point Likert scale ranging from (strongly disagree) to 7 (strongly agree). The other three measures were included in the survey for the criterion validity check afterward. Event experience satisfaction was measured with the three items from Bitner and Hubbert (1994), with a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Revisit intention was measured with a single item from Lee et al. (2012) using a

7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Post familiarity was measured with a revised four-item measure derived from Toyama and Yamada (2012) using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Those respondents who successfully completed the survey received a confirmation code at the end, and the research exported the usable data to RStudio for subsequent analysis.

3.6.3 DATA ANALYSIS

Once a factor structure had been identified, a CFA was conducted to assess the quality of the factor structure by statistically testing the significance of the overall model, as well as the relationships among items and the scale. Both global and local fit indices were evaluated to examine model fit. It is recommended to investigate many fit indices as they focus on different parts of the model (Fan, Thompson, & Wang, 1999, Hu & Bentler, 1999, Schumacker & Lomax, 2012). Global fit focuses on indices that investigate the "overall" model fit. The indices evaluated in the study include 1) Chi-Square test, 2) Comparative Fit Index (CFI), 3) Tucker-Lewis Index (TLI), 4) Root Mean Square Error of Approximation (RMSEA), and 5) Standardized Root Mean Square Residual (SRMR). Chi-square test should be rejected ($p > 0.05$) for exact fit (Barrett, 2007). The Comparative fit index family (CFI and TLI) compares the fit of the model to its baseline model. These should be higher than .95 or at least .90 to show acceptable fit (Hair et al., 2010). MacCallum, Browne, and Sugawara (1996) suggest RMSEA should be under 0.05 and 0.08 for good and mediocre fit respectively. SRMR that shows the amount of average residual across the model should be under .08 for an acceptable model or .05 for a good fitting model (Kline, 2013). Table 3.1 presents the fit indices used for the assessment.

Table 3.1. Fit indices used in the CFA

Measure	Description	Cut off for acceptable fit
Chi-Square	Access model fit by comparing the discrepancy between the sample covariance and the fitted covariance matrices. Null hypothesis: the model fits perfectly	P-value > .05
TLI	An TLI of .90 implies the model improves the fit by 90% compared to the null model.	TLI≥ .90
CFI	Revised TLI that is not very sensitive to sample size.	CFI ≥ .90
RMSEA	The average of residuals between the sample and the fitted model matrices.	RMSEA< .08
SRMR	The difference between the square-rooted residuals of the sample covariance and the fitted model.	SRMR < .08

Regarding local fit criteria, three indices were examined: 1) parameter estimates to make sure the values are significant and in the correct direction, 2) standard errors of parameter estimate to make sure the values are similar across the parameter estimates, and 3) R-squared values showing the amount of variance explained in the indicator by the factors.

3.7 STAGE 6: RELIABILITY AND VALIDITY ASSESSMENT

After the exploratory and confirmatory factor analyses have been performed, the internal consistency of the scale should be calculated again (Hinkin et al., 1997). The reliability of the scale was examined through the three measures including Cronbach's alpha (Cronbach, 1951), composite reliability (Raykov, 1997), and average variance extracted (AVE) (Fornell & Larcker, 1981). At this point, the new scale demonstrated internal consistency, but reliability is not sufficient condition to establish validity of the scale. Validity of a scale refers to the extent to which the scale measures the construct of interest as theorized or intended (Nunnally & Berstein, 1994). Discussions of validity are

multidimensional, which usually encompass several types: content validity, criterion (concurrent or predictive) validity, and convergent and discriminant validity.

Content validity means how well the scale measures or covers the construct of interest (Nunnally, 1978). In other word, it refers to the extent to which the scale items reflect the theoretically or empirically supported aspects of the construct that is being measured. Content validity of the SIF scale was assessed in the early phases of the scale development process by a thorough review of the related literature, consultation with experts, an ANOVA analysis with non-experts.

Criterion validity is the extent to which a measure is correlated with other variables that are expected to be correlated (Nunnally, 1978). A criterion can be any variable that is assumed to be correlated with the construct of interest, and there are typically several types. Concurrent validity refers to the case when the criterion and construct are measured at the same time (Cronbach & Meehl, 1955). However, if the criterion is measured later in the future after the construct is measured, the construct may have predictive power of the outcome (the criterion), which refers to predictive validity (Cronbach & Meehl, 1955). Concurrent validity in the study was examined with three outcome variables of event experience satisfaction, revisit intension, and post familiarity with the local culture. Testing predictive validity, however, was not possible because of the exploratory nature of the newly developed scale.

Although validity can be assessed with several techniques, examining relationships among the constructs within the scale being measured is also useful to accomplish validity. Convergent validity is the extent to which the measures of theoretically related constructs are positively correlated. On the other hand, discriminant

validity is the extent to which the measures of dissimilar constructs are actually not correlated (Campbell & Fiske, 1959). All of those correlations provide further evidence of validity reflecting a conceptual similarity or distinction. In the current study, convergent validity was assessed based on the AVE scores, which should be above .50 (Fornell & Larcker, 1981). Discriminant validity was also evaluated by inspecting the squared correlations among the dimensions of the SIF scale. A squared inter-construct correlation should not be higher than the AVE score to hold discriminant validity (Fornell & Larcker, 1981).

CHAPTER 4

RESULTS

4.1 STAGE 1: DOMAINS OF THE SIF

The primary purpose of conducting a focus group is to gain insight of how a targeted group of people conceptualizes the notion of interest (Stewart et al., 2007). In order to answer the question, "how do spectators of a live sporting event conceptualize SIF between the event and its hosting place?", four separate focus group discussions were conducted. It is important to assess whether the theoretical constructs a researcher strives to identify correspond with the perceptions and experiences of the target population. According to DeVellis(2012), focus groups can be an effective means to confirm whether the underlying meanings of the constructs of interest make sense to participants. Thus, the results of focus groups can provide a cornerstone to identify the structure of a multi-dimensional scale. The outcomes of the focus group sessions in the study demonstrate the scope and depth of what is salient in the participants' mind regarding a particular type of image fit representing multiple categories of the SIF domains. Overall, the findings highlight the complexity of the SIF concept, as several themes were identified. Participants reported that SIF might be composed of sight, sound, smell, taste, and touch fit in accordance with the five types of human senses. However, they also suggested the possibility that some dimensions of sensory fit are more important than others. For instance, sight, sound, and smell fit might construct a single dimension respectively; however, taste fit might have two discrete dimensions (e.g., food and drinks). In terms of

touch fit, there was not an agreed conclusion of whether touch fit is conceivable or not. Following is an in-depth discussion of each type of SIF.

4.1.1 SIGHT FIT

To determine the domain of sight fit, participants were first asked to answer what components constitute the visual image of a sporting event. Prior research have identified a few significant items that measures visual images of sports events including stadium's architecture, landscape, sightlines, scoreboards, decorations, and colors (Gaffney & Bale,2004; Gladden & Funk, 2002; Hill & Green, 2000; Holt, 1995; Lee et al., 2012; Rein, Kotler & Shields, 2006; Wakefield & Blodgett, 1994, 1996; Wakefield, Blodgett, & Sloan, 1996; Westerbeek & Shilbury, 1999). Participants mentioned previously identified items during the discussions, yet they also thought some of those items were too event or venue specific. For instance, participants in group 1,2, and 4 stated "landscape" might not apply to indoor events, or some venues might not have scoreboards that are prominent enough to catch spectators' attention. However, most participants expressed support for sight stimuli in general as the most dominant type of sensory images of a sporting event. There was a consensus of how powerful visual components at an event are, and participants articulated this particular conceptualization based on their experiences. G2-P3 mentioned that "it was really intriguing, how, like, all the colors of like Jumbotrons and stuff like that, so with brighter colors you saw, more people actually watching it." G1-P2 had a similar experience of scoreboards saying that "I always look at the scoreboard when I attend a game. It's just like bright lights that keep changing."

Identified items of the visual image extended prior findings from (Lee et al., 2010; Wakefield et al., 1996). As such G3-P8 said, "If you're having some performances or

some events for the, um, particular event, like a half-time thing or opening ceremonies, that would enhance my visual experience." G3-P8 also claimed that dancers and musicians of those live performances play an important role in creating visual images. G1-P1 then stated that "All the people moving around, like I mostly watch people." Some participants further conceptualized visual images beyond the scope of the event itself. For instance, some participants argued that the visual image of an event does not have to be derived from only the sources available within the event. In some participants' perception, construction around the stadium (G1-P5 and G3-P4) and infrastructure of the city (by G1-P4 and G1-P5) could be part of the visual capital of a sporting event. The defined visual image of a sports event was very comprehensive, and the assortment of the identified components include architecture of the venue, inside decoration of the venue, landscape, scoreboards, colors, signage, people, uniforms, live performances other than the event itself, construction around the venue, and infrastructure of the city.

The discussion then moved on to narrow down what visual components could be tied to local resources. Participants discussed with which items an event could effectively represent the local community or culture creating a fit. There was a general consensus that not every visual item could be related to local characteristics as participants enumerated a few cases. For example, landscape could not be localized in some incidents due to the geographic location of the venue. G4-P3 mentioned, "Some events do a good job of blending them into the city, but other times it's all by itself in the middle of nowhere, like Miller Park up in Milwaukee is in the middle of the parking lot." G4-P2 also suggested external visual images such as infrastructure of the city may affect

spectator's visual experience, but those stimuli are not under the event or venue managers' control. Thus, it would not be part of resources for SIF.

On the other hand, architecture and inside decoration of the venue could be effective fit components as G3-P6 stated that "Beijing National Stadium is part of the local as it was designed to incorporate essentials of Chinese art and culture." Regarding a scoreboard or signage, G3-P1 gave an example of youth soccer tournaments as an effort to make region-specific events by relating signage of each team to its relevant locality. G2-P2 additionally demonstrated the possibility of how opening ceremonies could engender local feelings saying

> It's happening somewhere in Scotland. You'll see their traditional performances and their skirts and bagpipes and everything. And if it's in Brazil, it'll be like really colorful, like if you have an opening ceremony in like Rio de Janeiro or somewhere. It's like different if you go to like different parts of the world where it's happening.

As well as the visual design, costumes of live performances could attract spectators especially for someone who is coming from far away. He or she would want to see more than generally available within the "home" culture and tradition. For example, G1-P2 talked about cricket events in India:

> What they did with the cheerleading stuff is that, um, so all these matches happen in different states and, um, in India, like every couple of kilometers you have a different culture and tradition and dances and costumes and everything. So, if the matches are happening in different states, the cheerleaders will be dressed differently according to the culture of that state. And that's really interesting for

me to see. So, that's also part of the visual feel that I'm getting. They're to make sure that they're not doing something that's too generic and they try to like put in their culture into it.

Though not every visual element of an event could be linked to what we can see in the local region, the focus group sessions revealed enough evidence that participants conceptualized fit between the visual images of an event and the hosting destination. After the discussions, the sight fit was defined as the extent to which the visual stimuli given in a sporting event are consistent with the local culture. It should be noted that "the local culture" was used as the matching concept of the visual images of an event. It was because finding common visual denominators between the sports context and the local hosting place is not always possible (e.g., scoreboards, spectators, uniforms). Moreover, as participants repeatedly mentioned in focus groups, sports events are dissimilar to one another and every venue has its uniqueness, indicating that spectators may not be capable of matching what they see in a sporting event with the visual contents given in the locality. However, by using the term culture, we can effectively embrace any visual factors. Culture covers all the amenities of attractions such as music, fashion, food, and sport (Appadurai, 1990). That is why culture has become essential sources for the construction of the destination images (Kavaratzis, 2007). As such, culture can be an all-encompassing terminology of multiple types of sensory images.

4.1.2 SOUND FIT

Participants first answered their perception of the sound image of an event discussing what auditory stimuli could affect their game experiences and constitute the sound image. In accordance with Gaffney and Bale's finding (2004), participants

mentioned three major sound items including noise and cheering sound of spectators, music at the event, and voice of announcers. Spectators interpret the environment through a synthesis of all sonic input being experienced, and the sound of adjacent fans seemed to be a significant factor. As an example of cheering, G3-P1 said, "I'm an Orioles fan, and in Baltimore, um, everybody chants and yells the letter O in the national anthem because we're Orioles, and that's like the, it's been doing it forever." Music at the event is also fairly influential according to G3- P2:

> "Sweet Caroline" in the eighth inning of any Red Sox game is a huge thing like a lot of people know about that. There are people who will go to Boston to watch a game, just to be part of "Sweet Caroline" in the eighth inning.

> The majority of participants thought to have those auditory components, whether it is a song, an announcer, or a specific individual who calls the games, help spectators feel attached to the event. They also agreed that those sound items are useful resources for making the event congruent with the local culture resulting in an image fit between the game the local area. Some participants, however, suggested that spectator sound might not be part of the local culture, yet it is mere event characteristics happening only during the game. The sonic image produced by spectators may have nothing to do with the local culture and stays only within the event. Although this was a reasonable concern, the unique sound created by spectators can also be pertinent to the local culture considering the definition of an image fit. As discussed in the previous literature review, an image fit can emerge after the lengthy process of an image transfer even without sharing similar attributes or overlapped images. In the Orioles example, the letter O initially had no connection with the home-based community, but the long history of the

Baltimore Orioles allowed an image transfer to occur from the team to the local community. Now, the action of shouting the letter O is an experience only available at Oriole Park, and thus spectators now can perceive fit between the sound image of the game and the local place.

Individuals may recognize unique cheering sound as a portion of the local sound and tradition. Music at a sporting event could be even more easily connected to local images through the lyrics or the origin of the artist. The previously mentioned example between Migos and the Atlanta Falcons the possibility of a sound fit. Even if a piece of music is not closely tied to the local area, there are various examples of how songs at sporting events represent the local community. For instance, the famous song "Sandstorm" by a Finnish DJ Darude has become a rallying anthem for the South Carolina Gamecocks football although there is no connection or congruent images between the song and the team. After more than ten years of usage of the song at Williams-Brice stadium, both away and home fans perceive the song as a Gamecock theme song. Here is what G1-P6 said during the discussion:

> If you hear Sandstorm somewhere else, you're like it's an off song. I've heard other places play Sandstorm and I'm like why are you using our song? I know technically it's not our song, but it's just how it feels.

Similarly, Sweet Caroline at a Red Sox game can be a "Boston experience." Because of the ubiquitous nature of music, people sing and listen to the songs not just within the boundary of the event environment, and thus, music is free from the limitation that spectator sound has. In turn, individuals may more easily perceive fit between music at the event and the local area.

The focus group sessions overall presented enough evidence that participants conceptualized fit between the sound image of an event and the hosting destination. Many components determine the sonic image of an event, such as spectator sound, music, and announcers. As an effort to create an inclusive concept, the researcher defined the sound fit as the extent to which the sound stimuli given in a sporting event is consistent with the local culture.

4.1.3 SMELL FIT

Previously identified smell components in sporting events are a venue's unique odor, crowd smells, food and beverage smells, and tailgate party smells. (Gaffney & Bale,2004; Gladden & Funk, 2002; Hill & Green, 2000; Holt, 1995; Lee et al., 2012). Participant responses were consistent with the prior literature as they declared three key smell items including a venue's distinctive smell, food and beverage smells, and odor of spectators. G4-P4 argued events could have an authentic smell stating, "One of the coolest things that I've gone to is a NASCAR race and the smell of the tires and the diesel, that was so cool for me." Some of the participants also mentioned about the scent of a field, for example, G4-P3 said that "I like the smell of an ice hockey rink. Yes, the Zamboni machine." However, in most cases, those notable smells are not consistent with or connected to the local culture. G4-P3 continued the discussion saying the field and court smell is not really a local object. At any outdoor venues however sports fans may smell the natural aspect of the place through the air. G3-P5 talked about a personal anecdote regarding how people sense the local smell:

> This reminds me of my mom. She grew up in Baltimore. She came here for the
> first time to Columbia attending a baseball game, and she talked about how

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beautiful the air smelled to camellias, and you know stuff like that. It's real

southern. Not that Maryland isn't sort of south, but that smell of southern morning.

Maybe we should pump that (smell) into our venues.

This story hints at the possibility of creating an original smell image of an event using

scents. Some places have mountain air, ocean breeze, and other natural fragrances. This

type of scent strategy could be especially meaningful because it can cover up unpleasant

smells at sporting events. The Kentucky Derby makes use of aromatic Mint Julep scent to

alleviate the inevitable problem with horse stool (G3-P10). Smells at live sporting events

are not always enjoyable as such crowd smell is neither pleasant nor usable resources,

and bathrooms are very easy to be disturbing, even if people do not go in. Moreover,

there is plenty of body odor by the crowd in a contained indoor venue. Those offensive

odors obviously have a negative impact on event experience. G4-P3 suggested that "We

may pump cherry blooms smell in D.C. area that would enhance spectator involvement."

G4-P4 then added another potential outcome of the local scent as to enable home fans to

take pride in the local place by being aware of the uniqueness of their own culture.

Some participants, however, raised a question of "Can we smell the place ?".

Even if we pump an artificial scent to create a local feeling, sports fans tend not to

recognize or not to be attentive to those location-based smells. In this case, local scents

have only incomplete applicability because sports fans' perception of those "local' scents

is limited. Food smell is, however, much more readily attract our attention and could be

consistent with the local culture. In other words, a savory aroma of local foods can

remind event attendees of the local image. According to G1-P5:

The local thing for us is like crab and any type of seafood, but like crabs, um,

Maryland blue crabs are really big. So if you go to a sporting event like an Orioles

game, there's like crab fries, and everybody in the area knows what that is. That's

a local thing.

Though not every olfactory element of an event could be closely correlated to

what we can smell in the local district, the focus group sessions indicated that participants

conceptualized fit between the olfactory image of an event and the hosting destination

through food and beverage smells, and unique venue smell to some extent. After the

discussions, the smell fit was defined as the extent to which the smells available in a

sporting event are consistent with the local culture.

4.1.4 TASTE FIT

Participants thought the taste image of an event was the most obvious one as

"what we can eat or drink while enjoying the game." In each group session, participants

provided numerous examples of food and beverage available at a variety of sporting

events. From generic concession foods such as hot dogs and nachos to localized dishes,

spectators now have diverse taste experiences depending on the venue's offerings. Group

members reached a consensus that to introduce indigenous regional foods into a sports

venue would successfully differentiate the supply of food at an event from mundane and

stale food service leading to more enhanced spectator experience. For example, G2-P1

narrated "When I worked at the Vassar Tournament, there were sandwiches, and pimento

cheese. That's a local thing, it's very special. People come and buy like ten sandwiches

because it's so much special, and I think that enhances the experience." G3-P6 also

introduced a creative marketing plan by the Milwaukee Bucks' special food program that features quintessential local dishes from visiting teams:

> They've got like five or six, um, home games where they've got teams coming in from other cities that have like famous food cultures, like the 76ers are in town, they have a specific concession stand just for Philly cheesesteaks. When the Bulls come in town, they're doing like, um, like Chicago style hot dogs and other things like that. Like when the Grizzlies comes in from Memphis, they'll do like a Memphis style barbecue or something like that.

This tie between food and a particular city would be a way to attract spectators who are around the area. Beverages seemed to be as important as foods since many participants strongly showed their positive attitude toward local beverage in sporting events. G4-P3 especially stressed how powerful drink could be saying "If they had local craft beer, I would totally be into that." G4-P3 also recited what Colorado State University is doing to incorporate region based beer at their games:

> I used to work there, and they're one of the few collegiate stadiums that allow beer. They were actually sponsored by Coors, but now they're sponsored by New Belgium, so they had a whole New Belgium cafe. I heard it happened because New Belgium is more representative of the local community.

A few professional sports teams are more proactive than competitors aggressively utilizing local resources. As said by G3-P2, the Atlanta Braves brought in several local restaurants into the Mercedes-Benz stadium, and some of the top chefs in the city now have a spin-off. G4-P6 then mentioned about Great American Ballpark in Cincinnati, where they even have a fresh local market called UDF in the stadium. The above

mentioned multiple examples indicate that food and drink are being associated with local culture, and the focus group sessions demonstrated supporting evidence that participants conceptualized fit between the taste image of an event and the hosting destination. The focus group discussions confirmed the two components, food and beverage, are the main elements of the gustatory image of a game, and thus the taste fit dimension was defined as the extent to which the food and beverage available in a sporting event are consistent with the local culture.

4.1.5 TOUCH FIT

A few scholars have described a touch experience in a sporting event as any physical contacts with other spectators or objects within the environment such as the feeling of comfortable seats or compressed sensation surrounded by the crowd (Gaffney & Bale, 2004; Lee et al., 2012). Participants consented that they previously had touch experiences while attending sporting events. Nevertheless, they felt dubious whether those physical contact based experiences would subsequently become a form of an image. G1-P9 said that "I might enjoy the feeling of being at the stadium packed with crazy fans, but I don't think an event has a touch image." Similar to what G1-P9 stated, most participants were confused with the concept of touch image. Spectators may conceive an experience of touching the seats, doors, and other parts of the venue, yet the term "touch image" was tough to define for the participants. Since participants did not comprehend what a touch image was, touch fit was simply unattainable. In other words, they did not conceptualize fit between events and places with regard to the touch sense.

However, few participants brought up an interesting point that a touch image does not have to be based on what we touch; instead, it can be anything that we can feel

through our skin. This idea was correspondent with Huang et al.'s (2014) argument that tactile marketing should not be confined to the texture of products; instead, surroundings that stimulate one's skin such as temperature or humidity may be utilized as marketing resources for reinforcing the image and identity of products. Similarly, in a certain type of sporting events, natural components like wind, air, humidity could be part of touch experience, and those ingredients are arguably location based. For example, G4-P5 mentioned: "I like the warmth of the South." G4-P2 also responded that "I expect rain in games in Seattle or the Northwest." Although few participants proposed the potential possibility of touch fit, the touch image was overall not strong or clear enough to construct fit in participants' standpoint. Therefore, the researcher made a tentative definition of the touch fit as the extent to which the tactile stimuli available in a sporting event are consistent with the local culture, and then, evaluated further the feasibility of the touch fit dimension in the following stage of the study.

4.2 STAGE 2: SCALE ITEM GENERATION

Because no instrument exists on SIF, items were generated based on the results of the previous qualitative investigation with the four focus groups that explored the domains of the scale. The focus group discussions provided insight into how sports spectators conceptualized the concept of sensory image and fit. The identified sensory components in sporting events were consistent with previous findings (Gaffney & Bale,2004; Gladden & Funk, 2002; Hill & Green, 2000; Holt, 1995; Lee et al., 2012; Rein et al., 2006; Wakefield & Blodgett, 1994, 1996; Wakefield et al., 1996; Westerbeek & Shilbury, 1999), but not every item could be paired with the local culture. Moreover, participants stated numerous examples of sports events that were dissimilar to one

another. Each venue and event has its uniqueness, which implies a specific attribute based scale items may not be able to embrace multiple types of sports or different venues. For instance, a potential item like "the image of the scoreboard is consistent with the visual image of the city" may only be applicable to limited situations.

Consequently, the researcher took a macroscopic point of view for creating items, instead of exhaustively covering individual sensory components. The overall structure of the items was determined based on the way participants reflected the terminology of SIF. According to Janis (1965), there are three types of focus group content analyses depending on the purpose of the study. Semantical attribution analysis, which examines the frequency with which certain characterizations or descriptors are used to explain the phenomenon of interest, seemed to be the most appropriate method for understanding how the participants perceived the concept of SIF. The attribution analysis is a simple counting exercise emphasizing on adjectives, adverbs, descriptive phrases (Janis, 1965), so the researcher made an effort to detect whether there were eminent semantic expressions or phrases when participants uttered their voices regarding SIF. Across the four focus group discussions, all 33 participants either made strong statements in support of this theme or expressed agreement. It turned out that 1) consistent with , 2) leave an impression 3) unique to, 4) representative of, and 5) part of were the five most frequently mentioned phrases while participants stated the term SIF in discussions. Table shows the frequency of each expression in the focus groups.

Table 4.1. The five most frequently mentioned phrases describing the SIF.

Phrase	Group1	Group2	Group3	Group4
Consistent with	5	6	8	4
Leave an impression (impressive)	4	3	5	6

Unique to	7	5	6	5
Representative of	5	3	7	6
Part of	7	4	6	5

For the sight fit dimension, six items were developed. As discussed previous, to minimize the issue of specificity and maximize external validity of the scale, not every visual element mentioned in the group discussions formed an individual item. The two most obvious visual elements, the architecture of the venue and the interior design of the venue, became a single measurement item respectively. The word "sights" incorporated other possible visual stimuli given in a sporting event. The structure of each item was based on the five identified phrases that reflect spectators' terminology of the SIF. A couple of extra items with "colors" and sightlines" were also included since those two elements are generally available at most of sporting events.

The identified sensory components in the sound dimension were spectator sound, the announcers, and music. Music seemed to be one distinctive sound constituent of an event so that it formed an item. Other sound stimuli such as noise and cheering sound of spectators, and voice of announcers were combined into the word "sounds." During the focus group sessions, participants agreed that sound can be a generic term that embody any auditory information of a live sporting event. Therefore, creating items with the broad expression could provide adequate scope and clarity to the construct definition. In a similar manner, smell, taste, and touch fit items were produced with inclusive words like "smells", "food", "beverages", and "natural and tangible environment." Table 4.2 lists the developed 27 items below.

Table 4.2. Initial 27 items of the SIF scale.

SIF Instrument
Sight Fit
The architecture at the event was representative of the local culture.
When I looked around this event, it was impossible to mistake the local culture.
The interior design and decorations at the event were representative of the local culture.
The sights at the event were unique to the local culture.
The sights at the event left a strong impression of the local culture.
The event provided good sightlines of the local place.
The colors at this event were consistent with the image of the local culture
Sound Fit
The sounds at the event was representative of the local culture.
When I closed my eyes and listened to the music at the event, it was impossible to mistake the local culture.
The sounds at the event were unique to the local culture.
The sounds at the event left a strong impression of the local culture.
The sounds at the event were consistent with the image of the local culture.
Smell Fit
The smells at the event were representative of the local culture.
When I smelled the surroundings at the event, it was impossible to mistake the local
The smells at the event were uniquely part of the local culture.
The smells at the event left a strong impression of the local culture.
The smells at the event were consistent with the image of the local culture.
Taste Fit
The food and beverages at the event was representative of the local culture.
The food and beverages at the event was part of the local culture.
The food and beverages at the event was unique to the local culture.
The food and beverages at the event left a strong impression of the local culture.
The food and beverages at the event was consistent with the image of the local culture.
Touch Fit
The natural and tangible environment at the event was representative of the local
When I take in the natural and tangible environment at the event, it was impossible to mistake the local culture.
The natural and tangible environment at the event was uniquely part of the local culture.

The natural and tangible environment at the event left a strong impression of the local culture.	
The natural and tangible environment at the event was consistent with the image of the local place.	

4.3 STAGE 3: CONTENT ADEQUACY ASSESSMENT

Once the scale has been developed, the next stage was to evaluate the content adequacy of the items. The content validity check consisted of several reviews by a panel of experts as well as non-experts.

4.3.1 ITEM REVISION WITH EXPERTS

The experts were four academic professors at multiple universities who were renowned scholars in the field of sports marketing and had experiences of developing a scale. DeVellis (2012) recommends that experts involved in the scale development process should review the entire sample item pool. Thus, the researcher presented the definitions of sensory image dimensions and all items to the expert panel for their evaluation of the scale. The researcher maintained, revised or removed items after taking the panel's comments into account. Table 4.3 demonstrates a full overview of the original items and the revised items.

Table 4.3. Initial and revised items of the SIF scale.

Old Items	Revised Items	
Sight Fit	**Sight Fit**	
The architecture at the event was representative of the local culture.	The architecture at the venue was representative of the local culture.	SIGHT1
When I look around this event, it was impossible to mistake the local culture.	When I looked around the event, I was reminded of the local culture.	SIGHT2
The interior design and decorations at the event were representative of the local culture.	The interior design and decorations at the event were representative of the local culture.	SIGHT3

The sights at the event were unique to the local culture.	The sights at the event were unique to the local culture.	SIGHT4
The sights at the event left a strong impression of the local culture.	The sights at this event left a strong impression of the local culture.	SIGHT5
The event provided good sightlines of the local place.	The event provided a good view of the surrounding of the local area.	SIGHT6
The colors at the event were consistent with the image of the local culture.	Deleted	
Sound Fit	**Sound Fit**	
The sound at the event was representative of the local culture.	The music at the event was representative of the local culture.	SOUND1
When I closed my eyes and listened to the music at the event, it was impossible to mistake the local culture.	When I listen to the music at the event, I was reminded of the local culture.	SOUND2
The sounds at the event were unique to the local culture.	The music played at the event was unique to the local culture.	SOUND3
The sounds at the event left a strong impression of the local culture.	The music at the event left a strong impression of the local culture.	SOUND4
The sounds at the event were consistent with the image of the local culture.	The music at the event was consistent with the image of the local culture.	SOUND5
Smell Fit	**Smell Fit**	
The smells at the event were representative of the local culture.	The smells at the event were representative of the local culture.	SMELL1
When I smelled the surroundings at the event, it was impossible to mistake the local culture.	When I smelled the surroundings at the event, I was reminded of the local culture.	SMELL2
The smells at the event were uniquely part of the local culture.	The smells at the event were uniquely part of the local culture.	SMELL3
The smells at the event left a strong impression of the local culture.	The smells the even left a strong impression of the local culture.	SMELL4
The smells at the event were consistent with the image of the local culture.	The smells at the event were consistent with the image of the local culture.	SMELL5
Taste Fit	**Taste Fit**	
The food and beverages at the event was representative of the local culture.	The food at the event was representative of the local culture.	FOOD1

The food and beverages at the event was part of the local culture.	The food at the event was part of the local culture.	FOOD2
The food and beverages at the event was unique to the local culture.	The food at the event was unique to the local culture.	FOOD3
The food and beverages at the event left a strong impression of the local	The food at the event left a strong impression of the local culture.	FOOD4
The food and beverages at the event was consistent with the image of the local culture.	The food at the event was consistent with the image of the local culture.	FOOD5
None	The beverages at the event were representative of the local culture.	BEVER1
None	The beverages at the event were part of the local culture.	BEVER2
None	The beverages at the event were unique to the local culture.	BEVER3
None	The beverages at the event left a strong impression of the local culture.	BEVER4
None	The beverages at the event were consistent with the image of the local culture.	BEVER5
Touch Fit		
The natural or tangible environment at the event was representative of the local culture.	Deleted	
When I take in the natural or tangible environment at the event, I was reminded of the local culture.	Deleted	
The natural or tangible environment at the event was uniquely part of the local culture.	Deleted	
The natural or tangible environment at the event left a strong impression of the local culture.	Deleted	
The natural or tangible environment at the event was consistent with the image of the local place.	Deleted	

4.3.1.1 SIGHT FIT REVISION

One sight item, "The colors at this event were consistent with the image of the

local culture," was deleted because of the reason that "color" is part of "sights." The

panelists thought having an item about color would be too specific and also be redundant because other two items (SIGHT 4 and SIGHT 5) include the word sights. Although architecture and interior could be part of sights of an event, they are two most outstanding sight images. Therefore, the first two sight items about architecture and interior design were untouched, but the color item was removed. The phrase in SIGHT2 "it was impossible to" was refined to "I was reminded of" because the original item seemed to be too strong and did not convey the meaning well. The word "sightlines" in SIGHT was somewhat confusing, and thus, it was changed to "good view." In addition, one of the panelists mentioned that architecture is typically more representative of buildings (venues) than events. Therefore, in SIGHT1, "at this event" was modified to "at this venue."

4.3.1.2 SOUND FIT REVISION

After thorough review and discussion with the experts, the researcher changed the scope of sound dimension from any sound stimuli available at the event to music, with the intention of focusing just on the music of the event. One panelist mentioned that it is questionable if certain sounds can be local, as most sounds are about the event not the local. Even if people argue sounds are part of local, there would be still a problem that items such as, music bands, announcers, and cheering, do not collectively measure the same underlying concept. Also, it is not possible to incorporate numerous sound components within an event because the environment of every sporting game is highly distinctive. In other words, it would be not possible to create universal sound fit items that can be applicable to every sporting event. By concentrating on the music part, the research thought those issues would be minimized, and we could consistently measure the sound fit. The word "sound" in all items, therefore, were replaced with "music."

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There was another minor change of wording in SOUND2. The intention of the original item was to capture just sound perception by isolating (i.e., close my eyes) other senses, but respondents might not be able to evaluate the statement due to the restriction of their experiences. The phrase "When I closed my eyes and listened to the music" was revised to "When I listened to the music."

4.3.1.3 SMELL FIT REVISION

No issue took place during the review process regarding the smell fit and its items, and thus the researcher did not alter any items instead maintained the original ones developed from the focus group sessions.

4.3.1.4 TASTE FIT REVISION

There were some debates in the focus groups as to whether food and beverages in the items should be coupled, or it would be better to have items specifically created for each type. All of the panelists recommended separating the items for food and beverages especially because it was the initial development phase of the new scale. The researcher also speculated that there might be two taste factors of the food and beverage fit. Moreover, combining those two engendered the problem of double-barreled items. So, five additional beverage items were newly created by replicating the food items and then modifying the word "food" to "beverages."

4.3.1.5 TOUCH FIT REVISION

Corresponding to the issue brought up by focus group participants, the panelists commented that touch fit would not be practical. They unanimously claimed that the items would not measure what they are designed to do so because of the vagueness of the wording, "the natural or tangible environment" used in the items. The expert panel

asserted that the items would barely have content validity. Therefore, the researcher dropped the touch fit dimension off from the sensory fit scale.

4.3.2 NON-EXPERT REVIEW

The retained items from the revision were presented to 105 undergraduate students in the Sports Management department at a large Southeastern University. The average age of the students was 19, 47% were female. The objective of the content adequacy assessment was to check how naive respondents properly classify the developed items into corresponding dimensions. To determine if the items were categorized according to the researcher's proposition, a within-subjects analysis of variance was conducted in SPSS version 25. First, the mean scores of all items on each of the four types of sensory fit dimensions were calculated, which were rated from 1(strongly inconsistent) to 7 (strongly consistent). Comparisons of means across the four dimensions were then performed to detect those items that were evaluated accordingly (i.e., to identify whether an item's mean value was significantly higher on the appropriate dimension than others ($p < .05$).

The results from the analysis revealed that all 26 items were classified in a manner consistent with the presumed conceptualization. Respondents' judgment reflected the proposed SIF dimensions, which demonstrated additional support for the content validity of the scale. Table 4.4 presents the mean scores for all items and highlights those items that were rated appropriately according to the previous conceptualization.

Table 4.4. Mean ratings of the SIF items on each sensory dimension.

	Sight Fit	Sound Fit	Taste Fit	Smell Fit
SIGHT1	**5.96**	2.55	2.66	2.51
SIGHT2	**6.22**	3.45	3.21	3.02
SIGHT3	**6.10**	2.71	2.74	2.59

SIGHT4	**6.35**	3.02	3.06	2.68
SIGHT5	**6.15**	2.91	2.93	2.91
SIGHT6	**6.08**	2.07	3.09	2.98
SOUND1	2.73	**6.39**	2.53	2.56
SOUND2	2.80	**6.25**	2.77	2.67
SOUND3	2.78	**6.41**	3.08	2.50
SOUND4	2.91	**6.30**	2.92	2.62
SOUND5	3.06	**6.31**	2.76	2.80
FOOD1	4.67	2.54	**6.34**	4.91
FOOD2	4.47	2.53	**6.32**	5.09
FOOD3	3.89	2.80	**6.13**	5.05
FOOD4	3.98	2.66	**6.25**	5.18
FOOD5	3.62	2.76	**6.10**	5.24
BEVER1	3.66	2.40	**5.98**	4.39
BEVER2	3.37	2.50	**6.09**	4.35
BEVER3	2.99	2.58	**6.04**	4.42
BEVER4	3.35	2.52	**5.94**	3.52
BEVER5	3.56	2.48	**6.10**	3.45
SMELL1	2.79	2.47	4.94	**6.38**
SMELL2	2.78	2.60	4.86	**6.36**
SMELL3	2.61	2.57	5.03	**6.37**
SMELL4	2.75	2.66	4.38	**6.62**
SMELL5	2.83	2.53	5.10	**6.52**

At this point in the scale development process, the researcher retained 26 items that have been prudently devised, thoroughly reviewed by experts, and modified according to the results of the quantitative pretest. None of the applied techniques would guarantee the content validity of the scale, but they provided enough evidence in the early stage that the items represented an acceptable measure of the construct under investigation and reduced the risk of subsequent scale modification. Those retained items from the content adequacy check then were used with confidence for further data collection and analyses, which will be discussed in the following sections.

4.4 STAGE 4: FIRST DATA COLLECTION AND ITEM ANALYSIS

The first data set was collected through the combination of two online survey

companies Qualtrics and MTurk. Qualtrics was used to design the questionnaire and

generate an anonymous hyperlink, and the questionnaire was distributed through MTurk.

A total of 185 sports consumers responded their experiences at a variety of live sporting

events. DeVellis (2012) recommends conducting an exploratory factor analysis as a

necessary step to establish the underlying structure of a set of items. An exploratory

factor analysis was thus performed to reveal the number of latent factors of the new scale.

Two preliminary tests of Kaiser-Meyer-Olkin (KMO) Measure and Bartlett's Test of

Sphericity were conducted in SPSS version 25 to assess the appropriateness of the data

for EFA (Kaiser, 1970; Bartlett, 1954). The KMO value of the data was .940, which was

above the commonly recommended cut-off point of .6 (Kaiser & Rice, 1974). The result

of Bartlett's Test of Sphericity was also significant (χ^2 (325) = 3976.501, $p < .01$) that

means there was an adequate number of significant correlations among the items (Hair et

al., 2010). Therefore, the collected data were satisfactory for factor analysis.

4.4.1 FACTOR EXTRACTION AND ROTATION METHOD

There are numerous factor extraction techniques for a scale developer to choose

from unweighted least squares, generalized least squares, maximum likelihood, principal

axis factoring, alpha factoring, and image factoring (Costello & Osborne, 2005). Fabrigar,

Wegener, MacCallum and Strahan (1999) suggest that if data meet the assumption of

multivariate normality, maximum likelihood (ML) is considered as the best method

because "it allows for the computation of a wide range of indexes of the goodness of fit

of the model and permits statistical significance testing of factor loadings and correlations

among factors and the computation of confidence intervals" (p. 277). If the data do not

hold multivariate normality, principal axis factoring (PAF) is recommended (Fabrigar et

al. 1999). Other scholars claim that in particular cases, other extraction options, for

instance, alpha extraction, are most suitable, but in general, ML or PAF will provide the

best results depending on normality of the data (Costello & Osborne, 2005).

The researcher chose PAF as the primary factor extraction method because of the

nature of the collected data. Following Finney and DiStefano's (2006) guidelines, the

multivariate normality of the data was evaluated using univariate skewness and kurtosis,

and multivariate kurtosis those which values should be less than 2, 7 and 3, respectively.

The results of descriptive statistics showed that the data did not hold multivariate

normality even though they were univariate normal. As Table 4.5 demonstrates below,

the skewness and kurtosis value of each item did not exceed the cut-off points of 2 and 7.

However, the result of Mardia's multivariate normality test in RStudio presented

multivariate kurtosis of 42.09, which were much higher than the suggested cut-off value.

Putting these various reports together, PAF was chosen as the extraction method.

Table 4.5. Descriptive statistics of the SIF instrument from the first data set.

	N	Mean	SD	Skewness	Kurtosis	Standard error
SIGHT1	185	5.11	1.35	-0.77	0.42	0.10
SIGHT2	185	5.26	1.26	-0.87	0.83	0.09
SIGHT3	185	5.01	1.54	-0.74	0.02	0.11
SIGHT4	185	5.11	1.44	-0.83	0.41	0.11
SIGHT5	185	5.30	1.3	-1.07	1.33	0.10
SIGHT6	185	5.28	1.42	-0.93	0.12	0.10
SOUND1	185	5.22	1.24	-1.12	1.51	0.09
SOUND2	185	4.72	1.50	-0.72	-0.14	0.11
SOUND3	185	4.34	1.61	-0.35	0.81	0.12
SOUND4	185	4.46	1.56	-0.31	-0.63	0.11
SOUND5	185	4.77	1.49	-0.71	-0.04	0.11

SMELL1	185	4.76	1.47	-0.53	-0.26	0.11
SMELL2	185	4.66	1.48	-0.51	-0.38	0.11
SMELL3	185	4.46	1.56	-0.36	0.69	0.11
SMELL4	185	4.49	1.50	-0.32	-0.57	0.11
SMELL5	185	4.63	1.47	-0.48	-0.24	0.11
FOOD1	185	4.99	1.35	-0.67	0.20	0.10
FOOD2	185	5.45	1.20	-0.85	0.48	0.09
FOOD3	185	4.68	1.54	-0.47	-0.64	0.11
FOOD4	185	4.88	1.41	-0.52	-0.37	0.10
FOOD5	185	5.13	1.30	-0.73	-0.03	0.10
BEVER1	185	4.74	1.51	-0.41	-0.58	0.11
BEVER2	185	4.80	1.52	-0.53	-0.41	0.11
BEVER3	185	4.52	1.62	-0.39	-0.78	0.12
BEVER4	185	4.55	1.56	-0.47	-0.58	0.11
BEVER5	185	4.82	1.45	-0.50	-0.41	0.11

The items were rotated during the factor analysis to identify the most interpretable solution by simplifying data structure (DeVellis, 2012). Similar to extraction method, there are several choices of rotations. Varimax, quartimax, and equamax are orthogonal rotation techniques, and oblimin, quartimin, and promax are frequently used oblique methods. Orthogonal rotations generate factors that are uncorrelated to one another in opposition to oblique methods that allow the factors to correlate (Costello & Osborne, 2005). The researcher assumed that the factors were related because individuals' perception of five senses does not operate in isolation. It is well known in cognitive psychology that one sense influences another (Power, 1980). In the sporting event context, for example, spectators may enjoy the smell of food with its taste, or the visual enjoyment through scoreboards may be closely associated with the music and other audible contents of the environment. Therefore, an oblique rotation was applied in the analysis. A promax rotation was chosen as the type of rotation to perform since it is the most commonly used (Kline, 2013).

4.4.2 DETERMINING NUMBER OF FACTORS

After choosing the extraction and rotation method, the next step was to decide how many factors to retain. Since both over and under extraction can have undesired effects on the results, researchers must perform separate tests and compare the results to conclude the appropriate number of factors (DeVellis, 2012). The most commonly used way is to retain all factors with eigenvalues higher than 1.0 (Kaiser, 1960). Eigenvalues simply mean the amount of variance in the items that a particular factor explains (Kline, 2013). Alternate factor retention tests include the scree test (Cattell, 1966), Velicer's MAP minimum average partial (MAP) criteria (Velicer & Jackson, 1990), and parallel analysis (Horn,1965). The scree test involves visual examination of the graph of the eigenvalues and searching for the "elbow" point in the data at which the drop in eigenvalues over subsequent factors flattens out. The elbow point is usually not included as part of factors to retain. (Kline, 2013). Velicer's MAP criteria examines a series of matrices of partial correlations that has been broadly used especially in many simulation studies in determining the appropriate number of factors to retain (Velicer & Jackson, 1990). Parallel Analysis extracts factors until the eigenvalues of the real data are less than the corresponding eigenvalues of a randomly generated data set of the same size (Horn, 1965). The researcher compared the result of all four analyses mentioned above. The eigenvalue criterion and the scree test were conducted in SPSS, and the other tests were performed in RStudio.

Table 4.6. Factors' initial eigenvalues and variance explained.

Factor	Eigenvalue	% of variance	Cumulative %
1	**13.462**	51.776	51.776
2	**1.934**	7.437	59.213
3	**1.366**	5.252	64.466

4	**1.260**	4.844	69.310
5	.987	3.795	73.105
6	.876	3.371	76.476
7	.722	2.775	79.251
8	.597	2.296	81.547
9	.494	1.899	83.447
10	.473	1.820	85.267
11	.437	1.680	86.947
12	.388	1.491	88.438
13	.349	1.343	89.781
14	.322	1.237	91.017
15	.287	1.104	92.121
16	.279	1.072	93.193
17	.253	.974	94.167
18	.230	.883	95.050
19	.210	.808	95.859
20	.205	.788	96.647
21	.184	.707	97.353
22	.165	.636	97.990
23	.154	.591	98.581
24	.135	.521	99.102
25	.128	.492	99.594
26	.106	.406	100.000

Table 4.6 shows the initial eigenvalues that the EFA produced. As shown in the above, the first four factors had eigenvalues higher than 1, meeting Kaiser's criterion. The four initial eigenvalues are in bold in Table 4.6 (Factor 1, eigenvalue = 13.462; Factor 2, eigenvalue = 1.934; Factor 3, eigenvalue = 1.366; Factor 4 = 1.260). The result suggests retention of the first four factors.

Figure 4.1then presents the scree plot of the initial eigenvalues for the factors. As shown below , there are multiple bending points at the second, third, and fifth factors. Although it is not very clear, the drop off seems to be around the fifth factors from which the plot creates a relatively straight line. Without including the fifth factor, these results suggest retention of the first four factors.
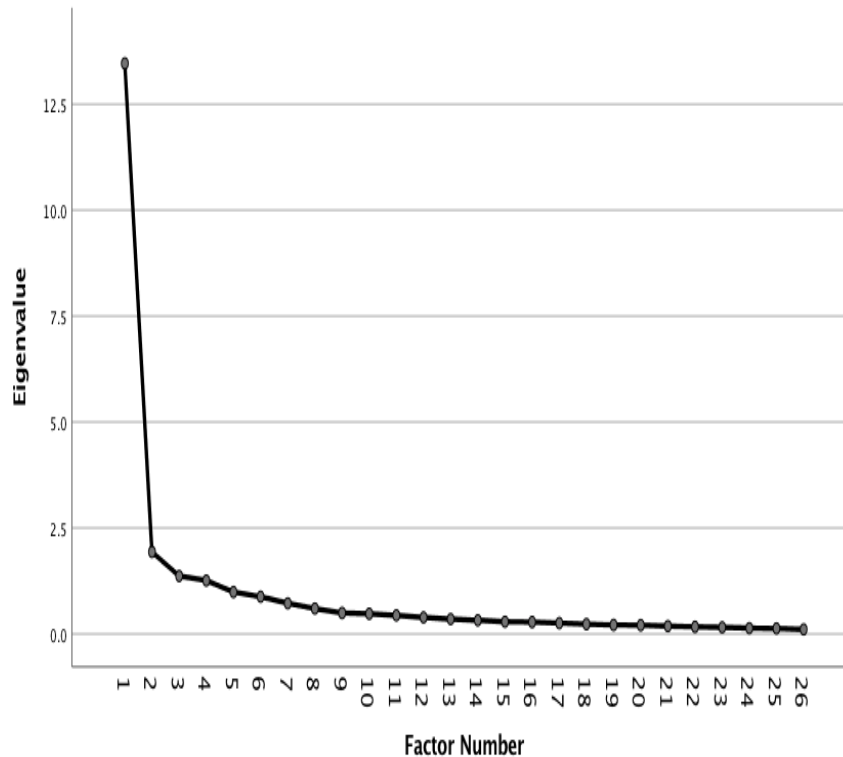
Figure 4.1. Scree plot of factors.

Regarding parallel analysis, the observed eigenvalues were compared against with those expected values from random data in RStudio, and the result suggested five factors to retain. Moreover, the Velicer's MAP in RStudio achieved a minimum squared average partial correlation of 0.02 with five factors.

In summary, the results indicate either four or five factors to retain. Prior literature in scale development suggests that that it is better to overestimate than to underestimate the number of latent factors (Guertin, Guertin, & Ware, 1981; Levonian & Comrey, 1966; Rummel, 1970). Also, prior studies recommend examining the highest to the lowest number of suggested factors until to the solution that is the most interpretable and consistent with the predetermined theoretical support (Hakstian, Rogers, & Cattell, 1982). The researcher therefore examined both of the four and five factor solutions to achieve the best possible outcome that has the largest communalities, the largest amount

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of items loading on their relevant factors with the fewest cross-loadings (Costello &

Osborne, 2005). The four factor had many cross-loading items and some large residuals,

and also exhibited problems with interpreting the solution. Based upon the criteria, the

five-factor solution was considered optimal demonstrating the simplest structure. The

following section presents the results of the EFA specifying a five-factor extraction with

a promax rotation, as the factors were correlated one another.

4.4.3 RESULTS OF THE FIVE-FACTOR SOLUTION

The five factors explained 9.01% (the beverage fit), 9.19% (the sight fit), 10.23%

(the food fit), 9.02% (the sound fit), and 10.21% (the smell fit) of the variance in the

solution after rotation. SPSS did not output the total amount of variance accounted

because of the correlation and overlap among the factors with oblique rotation. All of the

items reported reasonably high communality values with the minimum of 0.406 and the

maximum of .781. Communality values show the percentage of common variance

explained (Hair et al., 2010). For example, values above .40 show that the item is sharing

at least 40% of the variance with the set of factors. Costello and Osborne (2005)

recommend retaining items with communalities of .40 or above and the common

magnitude of communality values in the social sciences ranges from low to moderate

of .40 to .70. When an item has a communality of less than .40, it may not be related to

the other items or suggest the possibility of an additional factor to be explored. All items

in the analysis were satisfactory to Costello and Osborne's (2005) criterion.

The items signified strong markers of the factors with relatively high loading

values. Loadings for each item represent the level of correlation between the item and its

relevant factor, which also means the contribution of factors to each item (Hair et al.,

2010). According to the results, each factor was defined by at least five items, where

factor structures matched the prior assumption by the researcher. The standardized

loading and communality values are reported in Table 4.7. The highest loading value of

each item on the five factors is highlighted in bold.

Table 4.7. Factor loadings and communalities for 26 items of the SIF Scale.

	Beverage Fit	Sight Fit	Food Fit	Sound Fit	Smell Fit	Communality
BEVER2: The beverages at the event were part of the local culture.	**.882**	.014	-.033	-.009	-.020	.729
BEVER3: The beverages at the event were unique to the local culture.	**.811**	.106	-.117	.009	.021	.699
BEVER4: The beverages at the event left a strong impression of the local culture.	**.729**	-.101	.238	.066	-.032	.749
BEVER1: The beverages at the event were representative of the local culture.	**.715**	.030	.144	.019	.005	.742
BEVER5: The beverages at the event were consistent with the image of the local culture.	**.538**	.050	.378	-.118	.026	.726
SIGHT2: When I looked around the event, I was reminded of the local culture.	.071	**.769**	-.065	-.004	.117	.699
SIGHT3: The interior design and decorations at the event were representative of the local culture.	.011	**.768**	.086	.051	-.130	.628
SIGHT1: The architecture at the venue was representative of the local culture.	.094	**.706**	-.110	-.040	.196	.635

SIGHT4: The sights at the event were unique to the local culture.	-.024	**.638**	.034	.090	.043	.582
SIGHT5: The sights at this event left a strong impression of the local culture.	-.066	**.470**	.248	.061	.027	.517
SIGHT6: The event provided a good view of the surrounding of the local area.	.048	**.461**	.136	.047	-.082	.406
FOOD1: The food at the event was representative of the local culture.	.078	.021	**.855**	-.025	-.054	.738
FOOD4: The food at the event left a strong impression of the local culture.	.015	-.029	**.854**	-.023	.090	.764
FOOD5: The food at the event was consistent with the image of the local culture.	.087	.091	**.740**	.036	-.110	.681
FOOD3: The food at the event was unique to the local culture.	.143	-.028	**.590**	.040	.121	.733
FOOD2: The food at the event was part of the local culture.	-.036	.121	**.478**	.009	.117	.517
SOUND2: When I listen to the music at the event, I was reminded of the local culture.	.157	-.072	-.215	**.860**	.174	.762
SOUND3: The music played at the event was unique to the local culture.	.130	-.084	-.050	**.781**	.110	.732
SOUND5: The music at the event was consistent with the image of the local culture.	-.058	.016	.260	**.764**	-.089	.764
SOUND1: The music at the event was representative of the local culture.	-.156	.294	-.076	**.719**	-.090	.625
SOUND4: The music at the event left a strong	-.049	.077	.232	**.703**	-.062	.732

impression of the local culture.					
SMELL2: When I smelled the surroundings at the event, I was reminded of the local culture	-.028	.060	-.049	-.050	**.938**	.766
SMELL5: The smells at the event were consistent with the image of the local culture.	.011	-.035	.035	.024	**.871**	.778
SMELL3: The smells at the event were uniquely part of the local culture.	-.015	-.109	.174	.144	**.709**	.767
SMELL1: The smells at the event were representative of the local culture.	.198	.146	-.114	.012	**.664**	.704
SMELL4: The smells at the event left a strong impression of the local culture.	-.140	.145	.388	-.030	**.565**	.781

According to Hair et al. (2010) revision of a factor solution may be required if a factor has too few items, an item has no significant loadings, an item's communality is too low, or an item has a cross-loading. Neither the number of items in each factor nor the loading values of items were an issue in the solution although a few of items showed somewhat low loadings (SIGHT5, SIGHT6, FOOD2). Those low loadings were still higher than the recommended benchmark of .40 to show that those items were sufficiently related to latent variables. The only problematic issue of the solution was that BEVER5 loaded on both the beverage fit (.538) and the food fit (.378). As said by Costello and Osborne (2005) a cross-loading is when the loading value is .32 or higher on two or more latent variables. A simple structure with items loaded cleanly on one factor is desired in factor analysis, but having a cross-loading item in a factor solution is

acceptable as long as the relationship among the cross-loaded item and the factors is explainable (Costello & Osborne, 2005). In this case, the cross-loading of BEVER5 make sense considering food and beverage are two highly interrelated elements. Furthermore, there was just one cross-loaded item, and the solution was easy to interpret. After evaluating multiple criteria, the researcher decided not to re-specify the factor model and moved onto the next step of reliability check in which addition assessment was executed to check whether any revision or removal of items was necessary.

4.4.4 INITIAL RELIABILITY OF THE SCALE

To assess reliability, Cronbach's alpha scores were calculated first (DeVellis, 2012). Inter-item correlation and item to total statistics were also conducted. As shown in Table 4.8 below, alpha values are well above the benchmark score of .70 (Nunnally & Bernstein, 1994). The results of Cronbach's alpha indicate that each factor serves as a reliable scale as its items present a high degree of internal consistency.

Table 4.8. Cronbach's alpha scores for the five factors.

Factors	Cronbach's alpha score
Sight fit	.870
Sound fit	.910
Smell fit	.930
Food fit	.897
Beverage fit	.916

In much research, inter-item correlation and total item correlation functions as a criterion for initial assessment and purification of a new scale (DeVellis, 2012). Hair el al. (2010) suggests inter-item correlation should be ranged from .30 to .80, and item to total correlation is considered acceptable when the value is higher than .50. Based on these criteria, none of the items have a reliability issue. Additionally, item-deleted alpha values

were analyzed to assess whether removal of any particular would increase the internal consistency of the scale. The results revealed that no item would increase the alpha value suggesting that the scale would not become more reliable by dropping any of its items. Table 4.9 Presents the results of inter-item correlation and item to total statistics.

Table 4.9. Inter-item correlation and item to total statistics for the first data collection.

Inter-item correlation		
Factor	Range of scores	
Sight fit	.365 to .685	
Sound fit	.534 to .772	
Smell fit	.646 to .793	
Food fit	.517 to .777	
Beverage	.591 to .758	
Item to total correlation		
Item	Item statistic	Cronbach's alpha if item deleted
SIGHT1	.712	.837
SIGHT2	.764	.830
SIGHT3	.697	.840
SIGHT4	.702	.839
SIGHT5	.598	.857
SIGHT6	.541	.867
SOUND1	.672	.910
SOUND2	.810	.882
SOUND3	.783	.888
SOUND4	.795	.885
SOUND5	.810	.882
SMELL1	.784	.902
SMELL2	.841	.909
SMELL3	.812	.915
SMELL4	.847	.908
SMELL5	.793	.918
FOOD1	.604	.902
FOOD2	.764	.870
FOOD3	.832	.854
FOOD4	.741	.878
FOOD5	.800	.862
BEVER1	.740	.907
BEVER2	.799	.894
BEVER3	.810	.892

BEVER4	.822	.889
BEVER5	.752	.903

The researcher did not identify any serious red flags of the developed scale after performing multiple statistical analyses. Moreover, the five-factor solution was interpretable and consistent with the predetermined conceptualization of SIF. Hence, the researcher carried out the next stage of the scale development process without any further revision.

4.5 STAGE5: SECOND DATA COLLECTION AND ITEM ANALYSIS

The previous exploratory analytical results established the underlying structure of a set of items and revealed the number of latent factors of the new scale presenting some evidence of the five-factor solution. A CFA was then performed via RStudio for a more rigorous test of the 26 SIF items (DeVellis, 2012).

4.5.1 DETERMINATION OF MODEL ESTIMATOR

The researcher first checked the multivariate normality of the date to choose an appropriate model estimator. As presented in Table 4.10 below, the data were univariate normal having univariate skewness values less than 2 and kurtosis scores lower than 7 (Finney & DiStefano, 2006). The result of Mardia's multivariate normality test in RStudio, however, showed multivariate kurtosis of 114.91 that suggested the data violated multivariate normality. If data do not meet the normality assumption, we can still use ML estimator, and parameters (e.g., loadings, factor variances, covariances) would be accurately estimated (Kline, 2013). However, standard errors and chi-square model fit as well as other model fit indices would be biased. In most cases, the most effective way to deal with non-normality is to use a robust ML estimator (Finney & DiStefano, 2006),

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which corrects induced bias in the standard errors and generates a Satorra-Bentler (S-B) chi-square that precisely captures the appropriate amount of misfit in the model (Satorra & Bentler, 2010). Therefore a robust ML estimator was used to from a CFA. Other assumptions of CFA including sufficient sample size, a priori model specification, a random sample were taken care of in earlier stages.

Table 4.10. Descriptive statistics of the SIF instrument from the second data set.

	N	Mean	SD	Skewness	Kurtosis	Standard error
SIGHT1	510	5.04	1.43	-0.70	0.02	0.06
SIGHT2	510	5.25	1.35	-0.83	0.43	0.06
SIGHT3	510	5.05	1.40	-0.71	0.04	0.04
SIGHT4	510	5.11	1.36	-0.73	0.20	0.06
SIGHT5	510	5.31	1.23	-0.80	0.66	0.05
SIGHT6	510	5.17	1.49	-0.78	-0.07	0.07
SOUND1	510	5.12	1.29	-0.81	0.39	0.06
SOUND2	510	4.84	1.39	-0.49	-0.24	0.06
SOUND3	510	4.42	1.55	-0.32	-0.71	0.07
SOUND4	510	4.57	1.51	-0.42	-0.45	0.07
SOUND5	510	4.93	1.34	-0.70	0.22	0.06
SMELL1	510	4.77	1.43	-0.45	-0.30	0.06
SMELL2	510	4.73	1.46	-0.46	-0.33	0.06
SMELL3	510	4.53	1.49	-0.35	-0.47	0.07
SMELL4	510	4.63	1.42	-0.32	-0.33	0.06
SMELL5	510	4.72	1.43	-0.38	-0.37	0.06
FOOD1	510	4.96	1.36	-0.59	0.01	0.06
FOOD2	510	5.43	1.25	-0.84	0.45	0.06
FOOD3	510	4.66	1.56	-0.53	-0.39	0.07
FOOD4	510	4.78	1.46	-0.52	-0.26	0.06
FOOD5	510	5.12	1.27	-0.84	0.78	0.06
BEVER1	510	4.72	1.46	-0.42	-0.51	0.06
BEVER2	510	4.74	1.42	-0.47	-0.27	0.06
BEVER3	510	4.49	1.52	-0.27	-0.59	0.07
BEVER4	510	4.52	1.48	-0.35	-0.52	0.07
BEVER5	510	4.77	1.40	-0.47	-0.30	0.06

4.5.2 RESULTS OF THE FIVE-FACTOR MODEL: MODEL FIT INDICES

Several fit indices were examined to confirm the structure of the instrument using the sample variance-covariance matrix as input and a robust ML estimator. With the plenty of indices available to researchers, there is a disparity in agreement on which indices to choose and report the results. It is recommended to select a wide range of fit indices covering both absolute and incremental types (Hooper, Coughlan, & Mullen, 2008). Incremental fit indices do not use the chi-square value in its raw form but compare the chi-square score to a baseline model, which hypothesize all variables are uncorrelated (McDonald and Ho, 2002). Unlike incremental fit indices, absolute fit indices calculate the fitted model without comparing a baseline model but evaluate the model fit in comparison to no model (Bollen & Long, 1992). This study applied a variety of fit indices including both incremental (TLI and CFI) and absolute (chi-square, RMSEA, and SRMR) fit indices. Table 4.11 illustrates the results of the model fit.

Table 4.11. Fit indices of the five-factor model from the second data set.

Index	Value	Indication of fit
Chi-Square	731.084 (df = 289; p=0.000)	Acceptable
TLI	0.924	Acceptable
CFI	0.932	Acceptable
RMSEA	0.071 (90% CI: 0.065; 0.078)	Acceptable
SRMR	0.041	Good

The robust ML-based chi-square test was rejected showing that the test of exact fit did not hold. Although the result implies the model fitting might not be good, it does not conclude that the model is rejected entirely. The chi-square exact test is known to be too stringent, and therefore, should not be used alone as an absolute fit index (Anderson & Gerbing, 1988). Schermelleh-Engel, Moosbrugger, and Müller (2003) also argue that statistically insignificant chi-square value is not necessarily mean a poor fit; instead, the

model could be considered as good if the chi-square score is lower than two times of the degrees of freedom. In addition, if the chi-square score is lower than three times of the degrees of freedom, the model fit could be acceptable. The chi-square score of the tested model is less than three times of the degrees of freedom with the ratio of 2.53 to 1 indicating the model fit is acceptable. Other fit indices including the comparative fit index family (TLI and CFI) also show an acceptable fit with values higher than the .90 benchmark. The RMSEA value of the model is .70 with a confidence interval of .063 to .076, which indicates an acceptable fit. Lastly, the SRMR of the model is under .05 that indicates a good fitting model. In summary, most indices are inside of accepted bounds, and no index indicates a poor fit of the model providing support for the five-factor model.

4.5.3 RESULTS OF THE FIVE-FACTOR MODEL: PARAMETER ESTIMATES

The model was further evaluated with parameter estimates based on Finney & DiStefano's (2006) guidelines. For parameter estimates, evaluation criteria include 1) loadings are statistically significant, 2) most of the standardized loadings are moderate to large (values of at least .50), 3) most of the stand errors are low and within similar range, and 4) R-squared values showing the amount of variance explained in the indicator by the factors should be reasonably high.

Table 4.12. Factor loadings and standard errors of the 26 items of the five-factor model.

Item	Loading	Standard error
Sight fit		
SIGHT1	.735***	.000
SIGHT2	.831***	.076
SIGHT3	.736***	.054
SIGHT4	.767***	.072
SIGHT5	.673***	.074
SIGHT6	.660***	.063

Sound fit		
SOUND1	.645***	.000
SOUND2	.807***	.113
SOUND3	.801***	.108
SOUND4	.845***	.112
SOUND5	.830***	.103
Smell fit		
SMELL1	.822***	.000
SMELL2	.832***	.042
SMELL3	.864***	.045
SMELL4	.905***	.045
SMELL5	.886***	.045
Food fit		
FOOD1	.876***	.000
FOOD2	.620***	.055
FOOD3	.822***	.041
FOOD4	.881***	.036
FOOD5	.778***	.039
Beverage fit		
BEVER1	.902***	.000
BEVER2	.896***	.026
BEVER3	.777***	.038
BEVER4	.865***	.029
BEVER5	.871***	.031

*Note: *** p < .001*

Table 4.12 illustrates loadings and standard errors of the 26 items. As displayed in the table, all loadings are statistically significant ($p < .01$), and the values are high, showing no item loading is less than .6. Furthermore, all of the loading values are positive, stating that a positive linear relationship between item and factors.

Standard error refers to what is left over in the item after the factor accounts for the variance (Finney & DiStefano, 2006). Note that the error values of some items are zero because, in RStudio, the loading of the first item in each factor is set to 1 by default. Therefore, loadings of the "anchor" items are not estimated resulting in zero standard

error. The standard errors of the 26 items are relatively low, and the range of the values

are not very wide indicating no issues.

R-squared values show the amount of shared variance between items and factors

that range from 0 to 1 (Finney & DiStefano, 2006). These should be high showing lots of

common variance among items and factors. Although there is no absolute point to

determine the appropriate value, Hair, Ringle, and Sarstedt (2013) recommend an

acceptable R-square with 0.75, 0.50, and 0.25 described as substantial, moderate, and

weak respectively. On that account, most of the items have moderate or substantial R-

squared values except for the four items (SIGHT5, SIGHT6, SOUND1, and FOOD2).

Table 4.13 demonstrates R-square values of the 26 items below.

Table 4.13. R-squared values of the 26 items of the five-factor model.

Item	R-square
SIGHT1	.540
SIGHT2	.691
SIGHT3	.541
SIGHT4	.589
SIGHT5	.453
SIGHT6	.435
SOUND1	.416
SOUND2	.651
SOUND3	.641
SOUND4	.714
SOUND5	.689
SMELL1	.675
SMELL2	.692
SMELL3	.747
SMELL4	.818
SMELL5	.785
FOOD1	.767
FOOD2	.384
FOOD3	.676
FOOD4	.776
FOOD5	.605

BEVER1	.813
BEVER2	.804
BEVER3	.604
BEVER4	.748
BEVER5	.759

Finney and DiStefano (2006) suggest a scale developer may make a case for deleting an item with a low R-squared score. However, other information such as loadings and residuals should be considered to make the final decision of item removal. The loadings of the four items were already evaluated as good, and the residual matrix was furthermore examined to see whether those problematic items show additional issues. Residuals represent the differences between the original covariance matrix and the reproduced covariance matrix (Hooper et al., 2008). Researchers recommend looking for any obtrusively large values in a residual matrix, and values of 3 or above are generally regarded as problematic (Finney & DiStefano, 2006). As shown in Table 4.14, none of the residuals are higher than 3 with the highest value of 0.302 between SIGHT5 and FOOD2. Although the R-squared values of the four stated items are below .5, they are still very close to moderate (Hair et al., 2010). Moreover, loadings and residuals do not indicate any further issues implying each item serves as a good indicator of its corresponding scale with statistical significance. Table 4.14 displays the residuals of the four targeted items (the entire residual matrix is not reported since no issue was identified in other residual values).

Table 4.14. Residuals of items that have R-squared vales lower than .5.

	SIGHT5	SIGHT6	SOUND1	FOOD2
SIGHT1	-0.021	0.197	-0.041	-0.017
SIGHT2	0.012	-0.098	0.078	0.012
SIGHT3	-0.067	-0.092	0.015	-0.106

SIGHT4	0.008	0.040	-0.114	-0.009
SIGHT5	-	0.067	0.220	0.302
SIGHT6	0.067	-	-0.061	0.085
SOUND1	0.200	-0.061	-	0.225
SOUND2	0.079	0.005	0.085	0.039
SOUND3	-0.054	-0.079	-0.034	-0.167
SOUND4	0.036	-0.025	-0.089	-0.073
SOUND5	0.012	-0.041	0.094	0.005
SMELL1	0.001	-0.096	-0.006	0.004
SMELL2	-0.022	0.050	-0.095	-0.116
SMELL3	-0.094	-0.055	-0.211	-0.209
SMELL4	-0.070	-0.042	-0.192	-0.146
SMELL5	-0.091	-0.019	-0.098	-0.088
FOOD1	-0.028	-0.059	-0.100	0.018
FOOD2	0.302	0.085	0.225	-
FOOD3	-0.020	-0.045	-0.123	-0.134
FOOD4	0.091	0.069	-0.079	0.016
FOOD5	0.075	0.000	-0.002	0.156
BEVER1	-0.012	-0.037	-0.161	-0.017
BEVER2	-0.078	-0.093	-0.141	-0.060
BEVER3	-0.032	-0.010	-0.200	-0.172
BEVER4	0.027	0.094	-0.133	-0.072
BEVER5	-0.046	0.022	-0.119	-0.036

Hinkin et al. (1997) recommend that even if the overall fit and parameter estimates have been examined as satisfactory, additional analysis with modification indices (MIs) should be considered to check unspecified parameters, cross-loadings, or redundancy of items. MIs show the estimated amount that the chi-square model fit index would drop if the path in question is included in the tested model (Hooper et al., 2008). If the output of MIs shows many large modification values, the model should be re-specified, yet these modifications should only be applied if they are theoretically sounding and justifiable (Finney & DiStefano, 2006). The result of the MIs of the five-factor model revealed some high values, but most of them are theoretically not plausible

(e.g., the correlated error between SIGHT5 and FOOD3 or between SOUND5 and FOOD4). Furthermore, adding a few new paths would not achieve better model fit indices despite a lower chi-square score. In this case, the further modification does not seem to be necessary as Sweeney and McFarlin (1993) state that if all items are statistically significant properly loading on corresponding factors, and the magnitude of cross-loadings are relatively small, it can be argued that the data fit the model very well. Moreover, Hinkin et al. (1997) recommend as few as possible modifications should be made to the initial model. As the five factors represent the constructs under examination quite well, the researcher decided not to modify the model after synthesizing the results.

4.6 STAGE 6: RELIABILITY AND VALIDITY ASSESSMENT

4.6.1 RELIABILITY ASSESSMENT

The three measures were used to assess the reliability of the five-factor model: Cronbach's alpha (Cronbach, 1951), composite reliability (Raykov, 1997), and AVE (Fornell & Larcker, 1981). Cronbach's alpha is known to be the most widely used reliability measure, but some researchers have argued that it has numerous limitations (Shook, Ketchen, Hult, & Kacmar, 2004). They claim that composite reliability is a superior method because it is capable of drawing on standardized regression weights and measurement correlation errors for each item (Raykov, 1997). Additionally, AVE, which reflects the amount of average percentage of variation explained by the measuring items for a latent construct, could provide further insight on the reliability of the model. Table 4.15 presents the results of the reliability test.

Table 4.15. Reliability measures of the five-factor model.

Construct	Cronbach's alpha	Composite reliability	AVE
Sight fit	.876	.876	.5416

Sound fit	.890	.891	.6224
Smell fit	.935	.935	.7437
Food fit	.896	.898	.6418
Beverage fit	.935	.936	.7454

The reliability analyses show that the retained items based on the CFA overall have good internal consistency. The alpha values are well above the benchmark score of .70 (Nunnally & Bernstein, 1994) indicating that items of each factor measure the same constructs. All of the AVE scores are greater than .50, which meets Fornell and Larcker's (1981) reliability criterion. Lastly, the composite reliability values are higher than Raykov's (1997) recommended score of .6 achieving reliable measures of the constructs.

4.6.2 CONVERGENT AND DISCRIMINANT VALIDITY ASSESSMENT

Convergent validity of the model was evaluated with the AVE scores. All AVEs of the five factors show higher than the .5 benchmark recommended by Fornell and Larcker (1981), providing evidence of convergent validity. With regard to discriminant validity, one requirement is that correlations among the constructs should not exceed .85 (Kline, 2013). If the correlation value is greater than .85, the two constructs have a problem of either redundancy or multicollinearity. The correlations among the five factors were not higher than the benchmark cut-off of .85, though the values were fairly high ranging from .624 to .801 throughout the five constructs. The correlation matrix is shown in Table 4.16.

Table 4.16. Correlations between the constructs.

Construct	Sight fit	Sound fit	Smell fit	Food fit	Beverage fit
Sight fit	1.000				
Sound fit	.694	1.000			
Smell fit	.745	.698	1.000		

Food fit	.746	.759	.781	1.000	
Beverage	.624	.651	.796	.801	1.000

Since the correlations are not excessively high, there is some evidence of discriminant validity. However, because of the high correlations, an additional assessment with the AVE scores was conducted. To hold discriminant validity, the squared correlation between the involving constructs should not be higher than the AVE score (Fornell & Larcker, 1981). Table 4.17 demonstrates the results of the discriminant validity test.

Table 4.17. Discriminant validity test with AVE and squared correlation.

Factor	Sight fit	Sound fit	Smell fit	Food fit	Beverage fit
Sight fit	.5416				
Sound fit	.482	.6224			
Smell fit	.555	.487	.7437		
Food fit	.557	.576	.610	.6418	
Beverage fit	.389	.424	.634	.6416	.7454

The diagonal values are the AVEs of the construct whereas other values are the squared correlation between the respective constructs. The results present that the discriminant validity for all constructs is achieved showing evidence of distinct factors. Although the scores are considered as valid, the correlation between beverage fit and food fit is very close to the AVE of food fit. A logical explanation might be given by the fact that food and beverage are naturally interrelated as part of taste experience. Previous qualitative examination with focus group discussions denoted that spectator experiences via food and drinks are not always identical. Besides, the high correlation between food fit and beverage fit still does not surpass the AVE of food fit or the .85 benchmark. Thus,

instead of merging the two constructs into one vague food construct, the researcher treated them as two separate ones.

4.6.3 CONCURRENT VALIDITY ASSESSMENT

To assess concurrent validity of the SIF scale, the scale's relative impacts on other related outcome variables were examined using structural equation modeling (SEM) in RStudio. In the tested structural model, the five latent factors from the previous CFA model were aggregated into another latent variable, the SIF. By specifying this second order structure, the researcher was able to test a hierarchical model. Keith (2005) recommends scale developers exploring a second-order model if latent factors are significantly correlated one another. Also, a second-order model is considered as more parsimonious and constrained compared to its first-order model (Awang, 2012). The new latent variable was specified in the structural model to test how spectator's multi-sensory perception as a whole would influence other constructs under examination. The three outcome variables were 1) event experience satisfaction, 2) revisit intention, and 3) post familiarity with the local culture. Table 4.18 presents the measurement items for each variable and the Cronbach's alpha scores.

Table 4.18 List of outcome variables for the concurrent validity analysis.

Outcome variables	Items	Cronbach's alpha
Event experience satisfaction (Based on Bitner & Hubbert, 1994)	Compared with other sporting event experiences, I was very satisfied with the sporting event.	.886
	My personal experience at the sporting event was pleasant.	
	Based on all my personal experience at the sporting event, I was very satisfied.	
Post familiarity (Based on Toyama &	I became more knowledgeable of the local culture after attending the event.	.920

Yamada, 2012)	I have come to know more than others about the local culture after attending the event.	
	The local culture feels more familiar to me having attended the event.	
	I feel closer to the local culture having attended the event.	
Revisit intension (Based on Lee et al., 2012)	I am interested in returning to the venue for other sporting events.	

The structural model (see Figure 4.2) demonstrates an acceptable fit to the data (χ^2/df = 1157.685/518; CFI = .928; TLI = .922; RMSEA = .063; SRMR = .055). The structural relationships did show significance for the values except for the direct effect from the SIF to revisit intention, which means there is no statistically significant and direct impact of the SIF on revisit intention. However, there was an indirect effect of the SIF on revisit intention via event experience satisfaction. The SIF was positively related to event experience satisfaction, which then had a positive impact on revisit intention. The SIF also had a positive and direct effect on post familiarity. Forty-seven percent of variance in post familiar was explained by the SIF, and fifty-three percent of variance in revisit intention was explained by event experience satisfaction. Besides, the SIF explained about 11.7% of variance in event experience satisfaction. The presented relationships among the four variables are consistent with the theoretical background of the SIF scale thus providing evidence of concurrent validity.
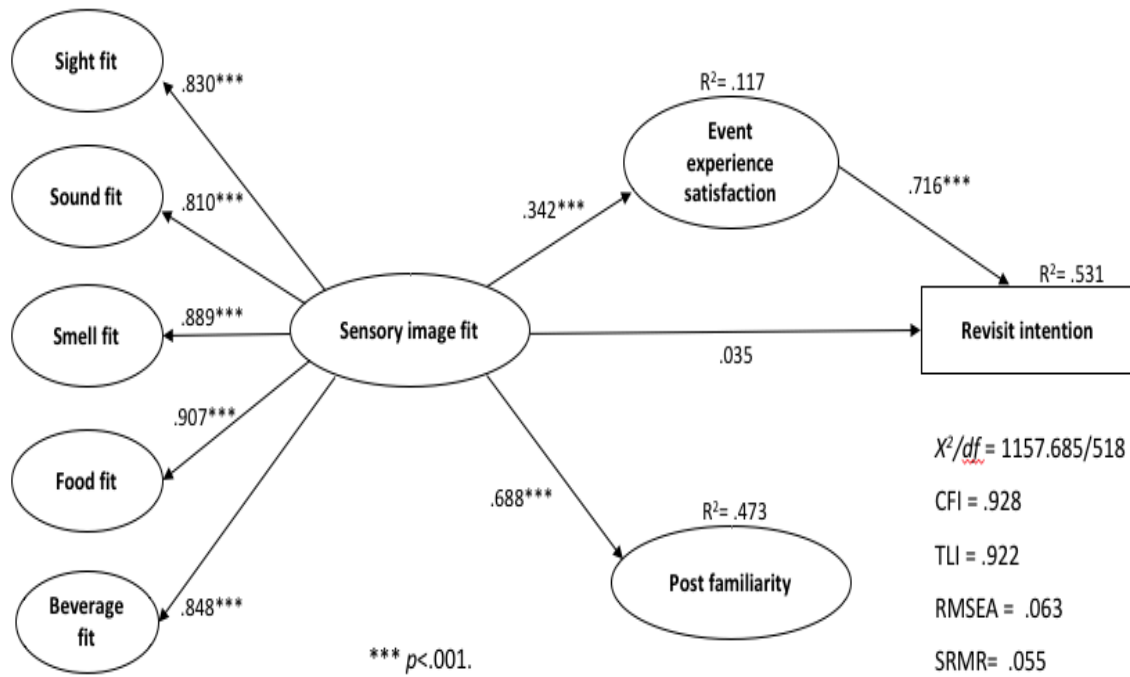
Figure 4.2. Structural model for testing concurrent validity of the SIF scale.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

5.1. GENERAL DISCUSSION OF THE RESULTS

Sports fans' experiences via their five senses have been examined by a few scholars (Lee et al., 2012; Lee et al., 2013), and findings from empirical studies have supported the effectiveness of marketing via sensory experience Sense-related experience is presumed to be enhanced by being association with distinctive local culture. The present study sought to develop an instrument to assess consumers' perception of SIF between the particular culture of the location and the event stimuli while attending a live sporting event. The development process was composed of both qualitative and quantitative investigation with focus groups and statistical analyses.

Prior research regarding human senses in sports demonstrated the scope and depth of sensory image of a sporting event, but it was still not clear what is salient in sports consumers' mind regarding the definition of SIF. Although many scholars have assessed sensory experience, destination image, and event images, this study was the first attempt to integrate those different domains by scrutinizing how spectators of a live sporting event conceptualize SIF between an event and its hosting destination. Due to time constraints, the author was not capable of physically attending multiple sporting events for data collection. So, the identified information in this study was based upon participants' recall of senses instead of real-time sensory perception. Nonetheless, the questionnaire could still effectively capture their sensory experiences as sense recognition

studies demonstrate that individuals' ability to memorize an experience persists over very long time periods with marginal reductions in recognition accuracy (Engen, Kuisma, & Eimas, 1973; Engen & Ross, 1973; Zucco, 2003). Since scholars have shown much evidence of the relationship between the number of senses involved and the ability to memorize an experience, it may go without saying that participants accurately remembered their event experiences using multiple senses, and thus the recalled messages functioned as a meaningful substitute of simultaneous sensation.

The results of the focus group discussions identified themes that represent multiple categories of the SIF domains. Unlike the preliminary assumption of the dimensionality of the SIF scale, qualitative findings were not consistent with the structure of the five human senses. The outcomes of thorough investigations highlight the complication of the SIF concept, and five constructs have been proposed forming a multi-dimensional construct of the SIF: 1) sight fit, 2) sound fit, 3) smell fit, 4) food fit, and, 5) beverage fit. The results of statistical models also consistently support the five-factor scale; nevertheless, the central premise of scale development is to create an instrument that best represents the psychometric properties of the construct of interest. Therefore, the reasoning behind the decision makings for the final items of each factor is explained in the subsequent paragraphs. Discussions of findings and results of the study are also given in the following.

Sight fit construct was the most obvious construct as an image usually refers to a visual representation of an object. As such, the focus group sessions revealed sufficient evidence that spectators can conceptualize fit between the visual images of an event and the hosting destination. Not every visual stimulus of an event could be connected to what

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we can see in the local region therefore, the decision was made to choose visual components for the sight fit item generation selectively. Statistical investigations revealed all six items are reliable and valid in terms of measurement of the construct. However, SIGHT 5 and SIGHT 6 are relatively weaker than the other sight items regarding loadings and R-squared scores. Orth and Malkewitz (2008) suggest the sight sense is the most dominant one for people to perceive surroundings and also is the most powerful one for them to feel the impression of an object. The strongest visual stimulus in any sporting events is the game itself, which is the major purpose of the attendance, and thus spectators might be more inclined to be impressed with the visual representation of the performers, rather than the other secondary visual images. A potential explanation of the results would be such that the expression of "leave a strong impression " in SIGHT 5 could be compromised because of the primary visual perception by athletes. With regards to SIGHT 6, the author' contention was that event attendees are able to observe the surroundings of the place regardless of whether it is an indoor or outdoor event. It is however still true that spectators more easily see the surroundings in outdoor games, so that "a good view" in SIGHT 6 might work better in arenas than stadiums. This means the item may lack generalizability due to the way it is worded. The author did not apply any restriction of types of sports in the data collection with the intention of developing a new scale. Nevertheless, an additional modification or removal of the item might be required should a researcher uses the SIF scale for a particular venue or sports genre.

Music has been known to make an impact on sports consumers' evaluations of live sporting events, and the sound fit was one distinct dimension of the SIF scale. Several sound components were identified during the focus group discussions, yet only

music was chosen as the core resource that constitutes the sound fit. Music has been the most widely used sensory supply (Gorn, 1982). Furthermore, songs played at sporting events do not have the limitation other auditory stimuli, such as spectator noise or announcers. Cheering sound can be part of the local culture as the previously discussed example of the Baltimore Orioles shows, but that case is not very common in most circumstances. By confining the domain of the sound fit to music, we can collectively measure the same underlying concept of the sound fit from a variety of sporting events. In other words, the defined sound fit dimension can be universally applied to any sporting events without worries about the distinctiveness of multiple live sports settings.

Spectator noise, however, could be still powerful stimuli for event attendees to feel the place as there are many sports where cheering and chants are distinct to a local area. Thus, further revision or expansion of the sound fit instrument might be needed. For instance, instead of using the word music, "musical elements" could possibly be more appropriate language to measure spectators' overall sound perception. Since the term musical is more extensive than just music, it would effectively capture how spectators think of sound components associated with a destination image (e.g., cheering sound, chants) beyond just songs given at events. Moreover, a musical element or component is still narrower than the generic term sound, and therefore, we may reach to the balance between generalizability and specificity.

Sound fit construct was found to be reliable and valid, yet SOUND 1, which was about how representative the music of an event is of the local culture, was not as highly related to the sound fit factor as the other sound fit items. SOUND 1 explained less variance compared to the other items. The results may reflect the current stage of music

in spectator sports. Although a few researchers examined music as a creative marketing communication (Ballouli & Bennett, 2014; Ballouli & Heere, 2015), the new "trend" of a partnership between sports teams and local artists to compose a symbolic song is still not common. Instead, overall music selection in sporting events is short-sighted and haphazard based on favorite songs. Other sound items still indicate the concept of musical fit is evident in sports spectators' mind, and thus it would be a valid argument the six items properly measure the extent to which event music reflects the image and personality of the place.

Regarding the sense of smell, scent related marketing tactics have become popular (Jeffries, 2007), and these tactics can be applied to the spectator sport industry. The reason why scent marketing is getting attention from both practitioners and researchers is that several studies have sustained the positive (negative) impacts of a pleasant (unpleasant) smell on the assessments of associated products or services (Morrin & Ratneshwar 2000). The current findings are consistent with previous literature (Goldkuhl & Styvén 2007; Morrin & Ratneshwar, 2000) as the sense of smell is related to consumers' satisfaction with an experience. Although the results of this study provide solid statistical support for the existence of the smell fit dimension, some of the focus group participants raised a question of whether we can smell an event or space. The concern was due to the odor effect being very subtle so that individuals have to concentrate carefully to notice it. On the other hand, it also indicates the smell sense can seamlessly penetrate into spectators' mind without disturbing their experience (Goldkuhl & Styvén 2007). Scent stimuli do not have to be as obtrusive as any sight; rather the

smell sense can become a powerful tool that influences emotions and memories in the least intrusive way.

Finally, in regards to the taste sense, the SIF scale extends the scope of the sensory image by providing a multifaceted perspective of the taste experience. This study was the first attempt to separate seemingly a single construct into two distinct sub-dimensions. The results of the factor analyses and other reliability and validity assessments revealed evidence of the two discrete factors of food and beverage. Previous studies have emphasized the role of food and drinks in events (e.g., Lee et al., 2012; Brakus et al., 2009), but they have not scrutinized the possible discrepancy between the consumption of food and drinks. Drinking and eating habits might not be identical because food is more closely associated with hunger whereas beverage is more for hedonic enjoyment. Interestingly, the mean scores of the food and beverage items were dissimilar, even though they were developed based on the exact same wording. For instance, FOOD 2 and BEVER 2, both of them are about whether the edible contents are part of the local culture. However, the loading score of BEVER 2 (.896) is much higher than the one of FOOD 2 (.620). This discrepancy could be because the food and drink selection at live events are dissimilar to each other. Regarding event foods, they used to be generic with hot dogs and fries, but the trend is to provide unique flavors and premium options. However, those special features often are not congruent to the image of local dishes (e.g., fried crickets at Safeco field). On the other hand, exclusive beverage offerings at sports venues are mostly associated with local brands, such as local breweries or beer companies (e.g., craft beers at BMO Harris Bradley Center), and that would probably be the reason why BEVER 2 shows a higher loading score than FOOD 2 does.

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Overall, the SIF scale with the five sub-dimensions of the sight, sound, smell, food, and beverage fit, serves well as an instrument that measures the level of general sensory fit regardless of event types. However, generalizability or transferability always conflicts with specificity. From a practical standpoint, a sports marketer' primary concern is the organization, event, or venue he or she is currently working for rather than the entire industry. Therefore, the high generalizability of the SIF could also be a limitation as the scale does not provide detailed information of a particular setting. For example, if an event manager's query is "What type of sensory component is more influential than others?" or "Is a tasty meal is a much more effective component than the glittering image of a scoreboard for the enhancement of experience ?", the SIF scale would not provide sufficient information to answer the questions. In order to alleviate this issue, the SIF scale could be applied along with open-ended questions that collect supplementary information regarding what type of senses is the most obvious or what sensory item is the most impressive affecting spectator experience. Specifically speaking, a researcher can ask respondents to enumerate sensory components they recognize while attending an event and array them in order of their preference. This may compensate for the lack of detailed information on the SIF scale. Then, the SIF instrument itself can be used to advance the sensory marketing literature by testing whether the effectiveness of combing event stimuli and local destination images engenders a particular brand image exclusive for the event.

Another noteworthy point of the SIF scale is that local sensory image was not classified into sub-dimensions, yet local culture was used as the matching concept of sensory images encompassing multiple types of senses. It was because identifying

sensory items common to both events and destinations is not always possible. Moreover, sports events are dissimilar to one another, and due to the complexity, spectators may not be able to match what they see, hear, smell, and eat in a sporting event with the sensory contents given in the locality. Another reason for the unification of the local images was because of the authors' intention to create a comprehensive instrument for generalizability. By using the term culture as embracing terminology of multiple sensory factors, the SIF scale provides an instrument that directly measures the level of congruity between events and hosting places with no limitation of applicability in types of sports.

The usage of the term local culture may bring up another question of how we define the boundary of a local area. Destination is usually specified as a city, a small district, or a particular event space (Zhang et al., 2014) whereas are the concept of a local place is nebulous as consumers' impressions of events can be highly distinctive depending on the types. For example, the destination of a mega event like Olympics, could be the host country, but the local region of a Yankees' game might be New York city rather than the entire state. Thereby, sports fans' perception of the scope of a local territory is hard to designate, if not impossible. Hence, instead of battling for finding a satisfactory definition, it would be more practical to place the definition in each person's appraisal. Likewise, in case of the SIF instrument to be used as a practical measure in organizational marketing research, the definition of a local area should be on the firm's hands not based on a pre-conceptualized definition by the researcher. In other words, the organization's business tactics should not be fettered by such constraint of the definition.

5.2 RELIABILITY AND VALIDITY

The main purpose of this study was to develop a reliable and valid scale that measures the extent to which the images of a sporting event fit the images of the hosting city or region. The reliability of the SIF scale was assessed through several measures with two separate data sets. With the first data set, Cronbach's alpha, item to total statistics, and inter-item correlation scores were analyzed along with the EFA to assess the internal consistency of the five factors. After finding enough evidence of the initial reliability of the scale, the scale items were re-evaluated with another data set in order to confirm the structural and psychometric properties of the SIF scale. The results of Cronbach's alpha, composite reliability, and AVE scores were well over the recommended guidelines, and also, by utilizing the test-retest approach, the stability of the scale was determined over time. The overall results indicate that the measures were free of error and thus generate consistent and reliable outcomes.

Validity analysis is considered as the most crucial part of the development of a new scale. Validity, more appropriately construct validity, is a multidimensional concept that includes content, criterion, convergent and discriminant validity (Messick, 1995). Thus, several techniques were comprehensively used for the assessment of the SIF scale.

First, two content analyses were performed one of which was by experts and the other was by undergraduate students. Four independent academic faculty members who previously had experience of developing a scale reviewed the initial items for the refinement and edit of the items. The touch fit dimension was removed since the expert panel unanimously asserted that the touch items would barely have content validity. Then, undergraduate students at a large research institution participated in the content adequacy

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survey in which respondents rated the extent to which the items were consistent with the sub-dimensions of the scale. All of the 26 items were categorized as intended showing additional evidence of the content validity of the scale.

Second, convergent and discriminant validity were examined to test conceptual similarity or dissimilarity of the five constructs based on the AVE scores the squared correlations. The constructs that were deemed to be similar were actually substantially interrelated with the AVE values higher than .5. All of the squared correlations were higher than the AVE score of the relevant factors that indicates the independence of each construct. Thus, the discriminant validity of the SIF instrument holds.

Third, to evaluate criterion validity, the SIF instrument's effects on other related variables were examined using SEM. Muldoon, Barger, Flory, and Manuck (1998) state that validity can be tested with several techniques, but comparison with appropriate indicators is the preferred method (criterion validity). Abstract constructs are not directly observable so that we must demonstrate that such measure of the construct under examination relates to another measure of a related construct in a theoretically coherent way in order to conclude whether the constructs are being correctly measured or not (Cronbach & Meehl, 1955). Following the conceptual framework of this study, the structural model illustrates how the SIF construct influences event experience satisfaction, revisit intention, and post familiarity.

The SIF factor made a positive and significant impact on event experience satisfaction explaining 11.7% of the variance. This figure might be regarded as low, but event satisfaction is known to be determined by numerous factors, some of which are sensory experience, sense of home, and social interaction as Lee et al. identified (2012).

In their study, the three constructs explained more than 70% of the variance of the overall event satisfaction. This study provides additional support for the significance of the sensory experience, and the results took a step forward indicating the effectiveness of sensory experience can become enhanced when local culture is combined with the given sensory stimuli within an event.

The SIF construct also had a positive influence on post familiarity of the local culture. The result is consistent with previous findings in the tourism literature that the more tourists have experiences of a particular destination, the more they become familiar with the culture of the place (Alba & Hutchinson, 1987, Rao & Sieben, 1992). The high SIF of an event means that spectators are exposed to culturally rich contents, which allow the attendees to be more familiar with the local culture. Hence, the impact of the SIF is not only on the satisfaction of an event but also on spectator perception of the local city or town. The results of the concurrent validity analysis, in general, are corresponding to the literature review and also to the author's assumption. Therefore, it would be valid to conclude that the SIF instrument holds concurrent validity.

Although the results of multiple analyses were satisfactory, it would be impossible to achieve absolute reality and validity at the same time. In social science research, validity and reliability are two contradictory concepts: the stronger reliability is, the weaker validity tends to be (Fendler, 2016). In that perspective, highly reliable scale items can be worrisome as there is a tradeoff between the two criteria. By having a narrow spectrum of constructs with general terms such as sights, music, smell, food, and beverage, the author accomplished a high level of reliability of the instrument, but the downside of having highly reliable items sometimes explain or predict less variance of

theoretically related variables. The author presumed sensory experiences congruent to a local destination image would explain more variance of event experience satisfaction than the result of this study (11.7%). Furthermore, the impact of the SIF on revisit intention was statistically not significant, which was contradictory to the author's assumption. That might be because the simplified items were not comprehensive enough to explicate the variance of outcome variables (event experience satisfaction and revisit intention). Given this, future study should consider further enhancing the validity of the scale by covering specific contents of each construct even scarifying the reliability.

5.3 CONTRIBUTIONS OF THE STUDY

According to Hyatt, Sutton, Foster, and McConnell (2013), the overall attendance rate of the four North American major leagues is showing a decreasing trend. With the recent mobile network innovation, the issue would be getting worse as fans' consumption patterns of sporting events have become highly diversified. In aggregate, attending a live event, especially in major professional sports, is no longer the dominant way to consume spectator sports (Filo, Lock, & Karg, 2015). This study then gives an insight into the current spectator sports industry that how sports marketers deal with this sustainability issue as well as to gain a competitive advantage by linking two separate terrains of research subjects: sporting event and destination image. The idea of exploiting the locale for creating a sporting event as a "touristic product" can also mitigate the adverse effects of on-field performances on spectator behavior (Hill & Green, 2000). Visual designs, music, food selections, unique smells, are all sensory factors that can be incorporated into a sporting event in which fans have memorable and personally meaningful experiences. As a result, those emotionally exuberated fans are less likely to be affected by the

perceived quality of the game, which means the attendees may stay until the end of the game even if the performance level is not satisfactory. This new approach suggests a tactic to differentiate seemingly analogues sporting events from competitors by which sports marketers deliver unique and notable services customized specifically to each event and venue. The current stage of utilizing sensory services in spectator sports, however, is apparently not effective enough to heighten sports organizations' positioning in the competitive marketplace. That is mainly because there is no instrument to measure the effectiveness. The SIF instrument, therefore, will function as the first step to the next level in sensory experience elucidating the usefulness of putting local resources into practical use in live sports.

This study makes a contribution as far as to the economic impact of a sporting event. It has been known that sporting events can generate considerable economic benefits to the hosting city (Getz, 1998). Nevertheless, Crompton (2001) demonstrates that much of previous research has been methodologically flawed, and the actual economic benefit produced by sports tourists is often well below the quantified figures in such findings. This is particularly because most of the economic impact studies in sports deal with mega events or major events in metropolitan areas (Wilson, 2006). The use of public funding to subsidize sporting events is sometimes hard to be justified on the basis that big events are in need of humongous infrastructure investment. In this case, expenditure of public funding is often not sensible since the expected return from the stream of economic activities sometimes does not outweigh the investment (Kesenne, 2005). On the other hand, this study proposes to utilize already existing cultural ingredient to increase economic benefits that accrue to the community without investing

an astronomical amount of capital. Moreover, this approach does not have to be just for mega or big sporting events, because numerous small towns host sporting events where rich local resources are available. In short, the current project calls attentions to the significance of a sporting event and its economic impact at a different angle.

Regarding a theoretical contribution, this study is the first one that measures fit level between a sporting event and its destination image in regards to human senses. Researchers have demonstrated that there is a common image capital between an event and the hosting destination (Hallman & Bruer, 2010; Xing & Chalip, 2006). Destination marketers, therefore, have utilized sporting events as a strategic marketing tool to enhance the image of the destination and differentiate its tourism offerings. However, the importance of sensory aspects in image fit has been overlooked. Accordingly, the field seemingly lacks theoretical foundation in dealing with sensory stimuli as a means of effective marketing communication especially through available location-based resources. An investigation is needed to enlighten academics and practitioners about the proper usage and potential outcomes of event stimuli, as they relate to the local image of the city or region. In this presentation, this study reviews the current literature on sensory image and develop a reliable and valid scale to provide a means to quantify the effectiveness of introducing local culture into a sporting event. Accordingly, it expands the understanding of prior sensory experience research to the field of sports consumption and helps sports marketers better understand how sensory stimuli and perceived local image might enhance spectator experience.

In addition to the expansion of the current knowledge in image fit into the domain of multi-sensory perception, this study develops literature in sports branding. Much

sensory marketing research upholds the idea that human senses serve as an intangible and symbolic image conveyor such that sensory experience can play a vital role in branding experiences (Hultén, Broweus, & Van Dijk, 2009; Lindstrom, 2005). In the current phase of sensory branding in sports, however, services with music, foods, visual images are not delicate or unique enough to become valuable resources. It is attributed to the fact that many strategies fulfilled by marketers are fundamentally not unique, and as a consequence, other sports venues can effortlessly implement the same tactical plan. Resources must be heterogeneous and not easily imitable for an organization to achieve sustainable competence (Barney, 1991). Thus, the kernel of sensory branding is to reveal each organization's core values and identity by building unique images that cannot be substituted using the help of the human senses. In response to this argument, this study suggests combining sensory stimuli in live sporting events and destinations for the purpose of crafting a new and inimitable image capital. The successful development of the SIF scale will permit scholars and practitioners to explore the opportunity of branding live experiences. Therefore, the product of the current investigation will eventually make a contribution to the field of sensory branding in the context of spectator sports.

5.4 IMPLICATIONS FOR FUTURE RESEARCH

Scale development should not be just a one-time process as the evaluation of multiplex construct validity is only available in conjunction with various investigations at different settings (Golafshani, 2003). This study was a cross-sectional exploration of the possibility of SIF, which was just an initial stage of the ever-evolving process. Hence, future research is required to refine the items further and conclude the psychometric properties of the SIF scale.

First, more external measures should be included in future studies so as to test the theoretical relatedness and construct validity of the SIF instrument. Although the impact of the SIF on outcome variables, such as post familiarity, was very prized, from a practical standpoint, it may be more useful to comprehend a potential consequence of the raised familiarity. The previous literature demonstrates that a level of familiarity is a significant factor for travelers to decide destinations (Tomoya & Yamada, 2012). Likewise, Milman and Pizam (1995) state that familiarity makes a positive effect on the likelihood of visitation. On that account, we can hypothesize that the increased familiarity (post familiarity) may positively inspire event visitors to revisit the local town. Should we find evidence of such connection from post familiarity to revisit intention to the destination (not to the event), we can further contend that concept of SIF contributes not merely to sporting events but as well to the local community as an introductory role of the local culture.

Second, future research should also consider the relative impacts of the SIF components across diverse contexts. The development of the SIF scale targeted at wide-ranging live sporting events without restriction in regards to types of sports or venues. Nevertheless, it is still true that sporting events have different attributes, for instance, professional major league sports are usually different the minor league ones out of which often provide profoundly different experiences. According to Hill and Green (2000), the elements that contribute to the overall satisfaction of event experience in the minor league baseball are different from those that are significant in the major league frame. Minor league teams usually focus more on the quality of stadium experiences and the differentiation of the offerings at the event other than the game itself (Lienert,1998). Thus,

fans in the major league setting may have a different perception of SIF than ones in the minor league context.

In a similar fashion, types of venues may serve as a moderating factor for the perception of SIF. Indoor or outdoor events have inherent differences where spectators do not have identical experiences especially regarding the smell and sight sense (e.g., the possibility of smelling or seeing natural components of the local space). Additional focus groups could be a valid method to understand whether there is discrepancy among dissimilar sporting events in regards to SIF. Refinement of items might be necessary to minimize a measurement error of the instrument. It is important to note that the developed SIF instrument in this study provides only a basic foundation from which a variety of research ideas can spread out. As an application of the SIF measure does not have to be confined to the sports-related settings, the author recommends prospective users of the instrument adjusting or modifying the given items in accordance with the needs and circumstances of their works.

Third, this studies demonstrates that SIF positively affects fans' event experience satisfaction. However, the underling mechanism of the SIF on satisfaction is still not thoroughly examined based on types of sports fans. The ways in which local and non-local fans perceive the city and an event within the area might be different even if they appreciate the event at the same space. Local fans might feel a sense of home by attending their home events and experiencing a heightened sense of their own culture (Giulianotti, 2004; Moore, 2000). On the other hand, non-local fans might expect to experience a game that features stimuli different from their own culture. As such, they consume sporting events equally as fans and tourists, whereby they can only have an

"authentic experience" amid different surroundings (Sims, 2009). Research could further make a contribution to the field of sports consumer behavior by elucidating how two different types of SIF can influence fans' event experience satisfaction founded on two mediating factors: a sense of home for local fans and an authentic experience for non-local fans.

Fourth, the impacts of individual factors of the SIF instrument on other constructs should be considered. If the SIF has predictive power of satisfaction, future intention, and familiarity, and then the natural next step is to test whether a particular dimension of the SIF is more influential than others in sports consumer behavior. Lee et al. (2013) provide empirical evidence of the impacts of the five senses on team identity and team loyalty. Similarly, a follow-up study could be conducted to see how the five dimensions of the SIF scale affect related outcomes of interest.

5.5 CONCLUSION

Attending a live sporting event is not merely for passively observing physical competitions. With the presence of other sports fans and numerous entertainment factors, sporting events provide an escape from ordinary lives. Notably, the value of spectator experience in the live environment is the embracement of multiple sensory inducements. Since a sporting event is regarded as multi-sensory entertainment appealing to all five senses, the effectiveness of sensory experience is expected to be much more substantial with which event visitors be emotionally engaged. Hence, the distinctive ambiance in sports venues functions as one of the most important causes that encourage individuals to attend live sporting events (Holt, 1995).

The use of the human senses in tourism research is as equally important as in the sports literature. Echtner and Ritchie (1991) contend that tourists' perception of a destination image is determined by the holistic impression of all types of senses. Visual cues like color, shape, and other sensory elements such as sound, smell, touch are all image components that exert a strong influence on travelers' impression of a specific destination. Subsequently, such sensory stimulation structures and identifies the environment of a destination (Lynch, 1960). Within this framework, tourism and sensory images are conjoined with each other, and that is probably why tourism scholars now argue that a multi-sensory evaluation should be added to destination measure along with cognitive and affective assessments (Son & Pearce, 2005).

Considering the significance of sensory resources in both sports and tourism, the author suggests an idea of building a bridge between the two research subjects using indigenous culture-based sensory images. It is conceivable that locales contribute unique properties for the promotion of sporting events because images of a place can play a vital role in choice and visitation due to their meaning to consumer behavior (Gartner, 1993). In this regard, development of touristic elements with multi-sensory stimuli would function as a source of reinforcement for an event resulting in the coalition of sports and tourism (Gammon & Robinson, 1997).

The results of this study demonstrate that the conceptualization of SIF is feasible in sports fans' mind, and the developed instrument possesses statistical soundness and appropriate conceptual nuance. Accordingly, the SIF scale provides the groundwork for future investigations in measuring how sporting events effectively and ingeniously incorporate destination culture. The strategic integration of sensory images in sporting

events and destinations will provide marketers with a new line of strategic approaches for extending economic benefits. Another advantage of the development of the instrument could be to provide a means to heighten the host area's attraction as a tourism product. Eventually, sports spectators will become beneficiaries who appreciate the outcomes of the joint efforts by events and locales.

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APPENDIX A: FOCUS GROUP CONSENT FORM

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose, benefits, and risks of the study and how it will be conducted.

Title of Study: Developing a Scale: Sensory Image Fit between Sporting Events and Destinations

Principal of researchers: Yongjin Hwang, PhD candidate at University of South Carolina (USC) Department of Sport & Entertainment Management. If you have any questions about the study, please contact at yhwang@email.sc.edu. Dr. Khalid Ballouli, Associate Professor at University of South Carolina (USC) Department of Sport and Entertainment Management College of Hospitality, Retail and Sport Management, is the faculty advisor for this research study and can be contacted at (803)777-2560.

Purpose: The purpose of the focus group is to understand your experience in multiple types of spectator events and to listen to your opinion about whether your event experience can be enhanced by utilizing inimitable local resources and characteristics.

Procedure: The focus group will take approximately 60 to 90 minutes to complete. The moderator will explain the rules and process of the focus group discussion first and then

start questing regarding event and local experiences. You will have chances to express your opinion beyond the scope of the questions. There are no right or wrong answers to the focus group questions. We want to hear many different viewpoints and would like to hear from everyone. We hope you can be honest even when your responses may not be in agreement with the rest of the group. In respect for each other, we ask that only one individual speaks at a time in the group and that responses made by all participants be kept confidential and the entire discussion will be audio and video recorded with your permission.

Benefits and Risks: The benefit of your participation is to contribute information to the effectiveness of utilizing local characteristics for enhancing spectator experience. There are no risks associated with participating in the study. You may choose to leave the study at any time, and may also request that any data collected from you not be used in the study.

Subject's Consent and Understanding Confidentiality: Your participation is voluntary and any information in this study is confidential. No one will be able to identify you or your answers. The Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed. You can discontinue your participation in the study at any time.

If you have any concerns about your rights in this study, please contact Lisa Johnson of the Office of Research Compliance at 803-777-7095 or email lisaj@mailbox.sc.edu.

APPENDIX B: QUESTIONNAIRE FOR CONTENT ADEQUACY TEST

Content Adequacy of Scale Items

The following survey is designed to analyze the content adequacy of newly developed scale items. The 26 items are presumed to construct a few sub-dimensions. Please take the time to read the definition of each dimension, and rate the 26 items on the extent to which the items correspond with the sub-dimensions. Please give your most candid and thorough response to the questions below. **Your answer will be confidential.** Thank you very much for your time and effort in filling out this survey.

Section 1

On a scale of 1-7 (1 = *Strongly Inconsistent;* 7 = *Strongly Consistent*), please assign a rating (by marking a circle) to each of the items below concerning the consistency between the definition of **Dimension 1** and the items.

Dimension 1: the relationship between **visual contents** of a sporting event and the image of the local place.

Items	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
1. The music at this event is representative of the local culture	1	2	3	4	5	6	7
2. The architecture at this venue is representative of the local culture	1	2	3	4	5	6	7
3. The food at this event is representative of the local culture	1	2	3	4	5	6	7
4. The smells at this event are representative of the local culture	1	2	3	4	5	6	7
5. The beverages at this event are representative of the local culture	1	2	3	4	5	6	7

Items							
6. When I listen to the music at this event, I am reminded of the local culture	1	2	3	4	5	6	7
7. When I look around this event, I am reminded of[3] the local culture	1	2	3	4	5	6	7
8. The food at this event is part of the local culture	1	2	3	4	5	6	7
9. When I smell the surroundings at this event, I am reminded of the local culture	1	2	3	4	5	6	7

Dimension 1: the relationship between **visual contents** of a sporting event and the image of the local place.

Items	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
10. The beverages at this event are part of the local culture	1	2	3	4	5	6	7
11. The music played at this event is unique to the local culture	1	2	3	4	5	6	7
12. The interior design and decorations at the event are representative of the local culture	1	2	3	4	5	6	7
13. The food at this event is unique to the local culture	1	2	3	4	5	6	7
14. The smells at this event are uniquely part of the local culture	1	2	3	4	5	6	7
15. The beverages at this event are unique to the local culture	1	2	3	4	5	6	7
16. The music at this event leaves a strong impression of the local culture	1	2	3	4	5	6	7
17. The sights at this event are unique to the local culture	1	2	3	4	5	6	7
18. The food at this event leaves a strong impression of the local culture	1	2	3	4	5	6	7
19. The smells at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
20. The beverages at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
21. The music at this event is consistent with the image of the local culture	1	2	3	4	5	6	7

	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
22. The sights at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
23. The food at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
24. The smells at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
25. The beverages at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
26. This event provides a good view of the surrounding of the local area	1	2	3	4	5	6	7

Section 2

On a scale of 1-7 (1 = *Strongly Inconsistent;* 7 = *Strongly Consistent*), please assign a rating (by marking a circle) to each of the items below concerning the consistency between the definition of **Dimension 2** and the items.

Dimension 2: the relationship between **sound contents** of a sporting event and the image of the local place.

Items	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
1. The music at this event is representative of the local culture	1	2	3	4	5	6	7
2. The architecture at this venue is representative of the local culture	1	2	3	4	5	6	7
3. The food at this event is representative of the local culture	1	2	3	4	5	6	7
4. The smells at this event are representative of the local culture	1	2	3	4	5	6	7
5. The beverages at this event are representative of the local culture	1	2	3	4	5	6	7
6. When I listen to the music at this event, I am reminded of the local culture	1	2	3	4	5	6	7
7. When I look around this event, I am reminded of[3] the local culture	1	2	3	4	5	6	7

Items							
8. The food at this event is part of the local culture	1	2	3	4	5	6	7
9. When I smell the surroundings at this event, I am reminded of the local culture	1	2	3	4	5	6	7
10. The beverages at this event are part of the local culture	1	2	3	4	5	6	7
11. The music played at this event is unique to the local culture	1	2	3	4	5	6	7

Dimension 2: the relationship between **sound contents** of a sporting event and the image of the local place.

Items	Items	Items	Items	Items	Items	Items	Items
12. The interior design and decorations at the event are representative of the local culture	1	2	3	4	5	6	7
13. The food at this event is unique to the local culture	1	2	3	4	5	6	7
14. The smells at this event are uniquely part of the local culture	1	2	3	4	5	6	7
15. The beverages at this event are unique to the local culture	1	2	3	4	5	6	7
16. The music at this event leaves a strong impression of the local culture	1	2	3	4	5	6	7
17. The sights at this event are unique to the local culture	1	2	3	4	5	6	7
18. The food at this event leaves a strong impression of the local culture	1	2	3	4	5	6	7
19. The smells at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
20. The beverages at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
21. The music at this event is consistent with the image of the local culture	1	2	3	4	5	6	7
22. The sights at this event leave a strong impression of the local culture	1	2	3	4	5	6	7

	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
23. The food at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
24. The smells at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
25. The beverages at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
26. This event provides a good view of the surrounding of the local area	1	2	3	4	5	6	7

Section 3

On a scale of 1-7 (1 = *Strongly Inconsistent;* 7 = *Strongly Consistent*), please assign a rating (by marking a circle) to each of the items below concerning the consistency between the definition of **Dimension 3** and the items.

Dimension 3: the relationship between any **items available to eat or drink** at a sporting event and the image of the local place.

Items	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
1. The music at this event is representative of the local culture	1	2	3	4	5	6	7
2. The architecture at this venue is representative of the local culture	1	2	3	4	5	6	7
3. The food at this event is representative of the local culture	1	2	3	4	5	6	7
4. The smells at this event are representative of the local culture	1	2	3	4	5	6	7
5. The beverages at this event are representative of the local culture	1	2	3	4	5	6	7
6. When I listen to the music at this event, I am reminded of the local culture	1	2	3	4	5	6	7
7. When I look around this event, I am reminded of[3] the local culture	1	2	3	4	5	6	7
8. The food at this event is part of the local culture	1	2	3	4	5	6	7

Items							
9. When I smell the surroundings at this event, I am reminded of the local culture	1	2	3	4	5	6	7
10. The beverages at this event are part of the local culture	1	2	3	4	5	6	7
11. The music played at this event is unique to the local culture	1	2	3	4	5	6	7

Dimension 3: the relationship between any **items available to eat or drink** at a sporting event and the image of the local place.

Items	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
12. The interior design and decorations at the event are representative of the local culture	1	2	3	4	5	6	7
13. The food at this event is unique to the local culture	1	2	3	4	5	6	7
14. The smells at this event are uniquely part of the local culture	1	2	3	4	5	6	7
15. The beverages at this event are unique to the local culture	1	2	3	4	5	6	7
16. The music at this event leaves a strong impression of the local culture	1	2	3	4	5	6	7
17. The sights at this event are unique to the local culture	1	2	3	4	5	6	7
18. The food at this event leaves a strong impression of the local culture	1	2	3	4	5	6	7
19. The smells at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
20. The beverages at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
21. The music at this event is consistent with the image of the local culture	1	2	3	4	5	6	7
22. The sights at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
23. The food at this event are consistent with the image of the local culture	1	2	3	4	5	6	7

Items	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
24. The smells at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
25. The beverages at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
26. This event provides a good view of the surrounding of the local area	1	2	3	4	5	6	7

Section 4

On a scale of 1-7 (1 = *Strongly Inconsistent;* 7 = *Strongly Consistent*), please assign a rating (by marking a circle) to each of the items below concerning the consistency between the definition of **Dimension 4** and the items.

Dimension 4: the relationship between **smells** available at a sporting event and the image of the local place.

Items	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
1. The music at this event is representative of the local culture	1	2	3	4	5	6	7
2. The architecture at this venue is representative of the local culture	1	2	3	4	5	6	7
3. The food at this event is representative of the local culture	1	2	3	4	5	6	7
4. The smells at this event are representative of the local culture	1	2	3	4	5	6	7
5. The beverages at this event are representative of the local culture	1	2	3	4	5	6	7
6. When I listen to the music at this event, I am reminded of the local culture	1	2	3	4	5	6	7
7. When I look around this event, I am reminded of[3] the local culture	1	2	3	4	5	6	7
8. The food at this event is part of the local culture	1	2	3	4	5	6	7

	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
9. When I smell the surroundings at this event, I am reminded of the local culture	1	2	3	4	5	6	7
10. The beverages at this event are part of the local culture	1	2	3	4	5	6	7
11. The music played at this event is unique to the local culture	1	2	3	4	5	6	7

Dimension 4: the relationship between **smells** available at a sporting event and the image of the local place.

Items	Strongly Inconsistent	Inconsistent	Slightly Inconsistent	Neither Consistent nor Inconsistent	Slightly Consistent	Consistent	Strongly Consistent
12. The interior design and decorations at the event are representative of the local culture	1	2	3	4	5	6	7
13. The food at this event is unique to the local culture	1	2	3	4	5	6	7
14. The smells at this event are uniquely part of the local culture	1	2	3	4	5	6	7
15. The beverages at this event are unique to the local culture	1	2	3	4	5	6	7
16. The music at this event leaves a strong impression of the local culture	1	2	3	4	5	6	7
17. The sights at this event are unique to the local culture	1	2	3	4	5	6	7
18. The food at this event leaves a strong impression of the local culture	1	2	3	4	5	6	7
19. The smells at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
20. The beverages at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
21. The music at this event is consistent with the image of the local culture	1	2	3	4	5	6	7
22. The sights at this event leave a strong impression of the local culture	1	2	3	4	5	6	7
23. The food at this event are consistent with the image of the local culture	1	2	3	4	5	6	7

24. The smells at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
25. The beverages at this event are consistent with the image of the local culture	1	2	3	4	5	6	7
26. This event provides a good view of the surrounding of the local area	1	2	3	4	5	6	7

Section 5

Please check the answer that best describes you.

1. What is your gender?

☐ Female

☐ Male

☐ Prefer not to answer

2. How old are you ?

☐ Under 18 years

☐ 18-19 years

☐ 20-21 years

☐ 22-23 years

☐ Over 23 years

3. What is your ethnicity?

☐ Hispanic

☐ Black or African American

☐ White

☐ Native American or American Indian

☐ Asian / Pacific Islander

☐ Other (please specify) _____

This concludes the survey. Thank you very much for your participation.

APPENDIX C: ONLINE SURVEY CONSENT FORM

CONSENT FORM FOR ONLINE SURVEY PARTICIPATION

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose, benefits, and risks of the study.

Title of Study: Developing a Scale: Sensory Image Fit between Sporting Events and Destinations

Principal of researchers: Yongjin Hwang, PhD candidate at University of South Carolina (USC) Department of Sport & Entertainment Management. If you have any questions about the study, please contact at yhwang@email.sc.edu. Dr. Khalid Ballouli, Associate Professor at University of South Carolina (USC) Department of Sport and Entertainment Management College of Hospitality, Retail and Sport Management, is the faculty advisor for this research study and can be contacted at (803)777-2560.

Purpose: The purpose of the survey is to develop a scale called "sensory image fit" by understanding your perception of the relationship between a sporting event and its hosting destination.

Benefits and Risks: The benefit of your participation is to contribute information to the effectiveness of utilizing local characteristics for enhancing spectator experience. There are no risks associated with participating in the study.

Subject's Consent and Understanding Confidentiality: Your participation is voluntary. You may refuse to take part in the research or exit the survey at any time without penalty. You are free to decline to answer any particular question you do not wish to answer for any

reason. Any information in this study is confidential and no one will be able to identify you or your answers. The Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed. You can discontinue your participation in the study at any time.

If you have any concerns about your rights in this study, please contact Lisa Johnson of the

Office of Research Compliance at 803-777-7095 or email lisaj@mailbox.sc.edu.

APPENDIX D: QUESTIONNAIRE FOR THE FIRST DATA ADMINISTRATION

Q2 Have you attended any ticketed professional sporting event(s) within the last 3 months?

○ Yes

○ No

*

⌐ **Condition: Yes Is Selected. Skip To: What was the live professional sporti....**

⌐ **Condition: Yes Is Selected. Skip To: Thank you for your willingness to par....**

Q3 Thank you for your willingness to participate in this survey. Unfortunately, based on your answers to one of the previous questions, you do not meet the qualifications for this study. You are seeing this message because of any of the following reasons:

- You have not attended a live professional sporting event within the last 3 months.
- You are under 18 years old.

This follows Amazon Mechanical Turk policy, which states that "a Requester may reject your work if the HIT was not completed correctly or the instructions were not followed."

We sincerely thank you and appreciate your time and participation. You will now be directed to the end of the survey at which point you may close this window or navigate to the Amazon Mechanical Turk site.

⌐ **Condition: Thank you for your willingn... Is Displayed. Skip To: End of Survey.**

Q4 What was the live professional sporting event you attended most recently?

*

Q5 When was the live professional sporting event you attended most recently? (DD/MM/YYYY)

Q6 What was the location of the live professional sporting event you attended most recently (City/State)?

Q7 Was the live professional sporting event you attended in your local area?

○ Yes, the event I attended was in the local area where I live.

○ No, I travelled outside of my local area to attend the event.

Add Block

▼ Block 8   Block Options ⌄

Q8 The following survey is designed to understand spectators' perception of the relationship between live sporting events and the culture of the hosting places. Please take the time to read each question carefully before you answer and tell us how you truly feel. Your answers should be based on the most recent event you attended.

Add Block

▼ Block 3   Block Options ⌄

Q9 On a scale of 1 - 7 (1= Strongly Disagree; 7= Strongly Agree), please assign a rating to each of the statement below by choosing the correct response. Your answers should be *based on the most recent event you attended.*

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The music at the event was representative of the local culture.	○	○	○	○	○	○	○
The food at the event was part of the local culture.	○	○	○	○	○	○	○

The sights at the event left a strong impression of the local culture.	○	○	○	○	○	○	○
The beverages at the event were unique to the local culture.	○	○	○	○	○	○	○
The smells at the event were representative of the local culture.	○	○	○	○	○	○	○
When I listened to the music at the event, I was reminded of the local culture.	○	○	○	○	○	○	○
The event provided a good view of the surrounding of the local area.	○	○	○	○	○	○	○
The architecture at the venue was representative of the local culture.	○	○	○	○	○	○	○
When I smelled the surroundings at the event, I was reminded of the local culture.	○	○	○	○	○	○	○
The beverages at the event were part of the local culture.	○	○	○	○	○	○	○
The music played at the event was unique to the local culture.	○	○	○	○	○	○	○
The food at the event was consistent with the image of the local culture.	○	○	○	○	○	○	○
The music at the event left a strong impression of the local culture.	○	○	○	○	○	○	○
The smells at the event were uniquely part of the local culture.	○	○	○	○	○	○	○
The beverages at the event were representative of the local culture.	○	○	○	○	○	○	○
The music at the event was consistent with the image of the local culture.	○	○	○	○	○	○	○
The sights at the event were unique to the local culture.	○	○	○	○	○	○	○
The food at the event left a strong impression of the local culture.	○	○	○	○	○	○	○
The smells at the event were consistent with the image of the local culture.	○	○	○	○	○	○	○
The beverages at the event left a strong impression of the local culture.	○	○	○	○	○	○	○
The food at the event was unique to the local culture.	○	○	○	○	○	○	○
The interior design and decorations at the event were representative of the local culture.	○	○	○	○	○	○	○
The smells at the event left a strong impression of the local culture.	○	○	○	○	○	○	○
The food at the event was representative of the local culture.	○	○	○	○	○	○	○
The beverages at the event were consistent with the image of the local culture.	○	○	○	○	○	○	○
When I looked around the event, I was reminded of the local culture.	○	○	○	○	○	○	○

Add Block

▼ Block 1   Block Options ⌄

Q14 The following section includes demographic questions. Please check answers that best describe you.

Add Block

▼ Block 2   Block Options ⌄

Q15 What is your gender?
- ○ Male
- ○ Female
- ○ Other

Q16 Please tell us your age.
- ○ 18 - 29
- ○ 30 - 49
- ○ 50 - 69
- ○ 70 or older

Q17 What is your ethnicity?
- ○ Hispanic
- ○ Black or African American
- ○ American Indian or Alaska Native
- ○ Asian
- ○ White
- ○ Other

Q18

What is your household income?

○ Less than $15,000

○ $15,000 - $34,999

○ $35,000 - $74,999

○ $75,000 - $99,999

○ $100,000 or more

Add Block

▾ Block 4   Block Options ⌄

Q19

Your survey has been submitted successfully.

Below is your MTurk confirmation code:

${e://Field/confirmation_code}

To receive payment for participation, please enter this validation code when you submit this HIT.

Add Block

⚠ End of Survey   Survey Termination Options...

APPENDIX E: QUESTIONNAIRE FOR THE SECOND DATA ADMINISTRATION

▼ Default Question Block   Block Options ⌄

Q1   What is your age?

    ○ Under 18

    ○ 18 - 29

    ○ 30 - 49

    ○ 50 - 69

    ○ 70 or older

Condition: 18 - 29 Is Selected. Skip To: Have you attended any ticketed profes....

Condition: Under 18 Is Selected. Skip To: Thank you for your willingness to par....

Condition: 30 - 49 Is Selected. Skip To: Have you attended any ticketed profes....

Condition: 50 - 69 Is Selected. Skip To: Have you attended any ticketed profes....

Condition: 70 or older Is Selected. Skip To: Have you attended any ticketed profes....

Q2 Have you attended any ticketed professional sporting event(s) within the last month?

○ Yes

○ No

Condition: Yes Is Selected. Skip To: What was the live professional sporti....

Condition: No Is Selected. Skip To: Thank you for your willingness to par....

Q3 Thank you for your willingness to participate in this survey. Unfortunately, based on your answers to one of the previous questions, you do not meet the qualifications for this study. You are seeing this message because of any of the following reasons:

- You have not attended a live professional sporting event within the last month.
- You are under 18 years old.

This follows Amazon Mechanical Turk policy, which states that "a Requester may reject your work if the HIT was not completed correctly or the instructions were not followed."

We sincerely thank you and appreciate your time and participation. You will now be directed to the end of the survey at which point you may close this window or navigate to the Amazon Mechanical Turk site.

Condition: Thank you for your willingn... Is Displayed. Skip To: End of Block.

Q4 What was the live professional sporting event you attended most recently?

Q5 When was the live professional sporting event you attended most recently? (DD/MM/YYYY)

Q6 What was the location of the live professional sporting event you attended most recently (City/State)?

Q7 Was the live professional sporting event you attended in your local area?

○ Yes, the event I attended was in the local area where I live.

○ No, I travelled outside of my local area to attend the event.

Add Block

▼ Block 8   Block Options ⌄

Q8 The following questions are meant to help us understand spectators' perception of live sporting events and the culture of the host place. Please take the time to read each question carefully before you answer and tell us how you truly feel. Your answers should be based on the most recent event you attended.

Add Block

▼ Block 3   Block Options ⌄

Q9 On a scale of 1 - 7 (1= Strongly Disagree; 7= Strongly Agree), please assign a rating to the statements below by choosing the response that most accurately describes the way you feel. **Your answers should be based on the most recent event you attended.**

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The music at the event was representative of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The food at the event was part of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree

The sights at the event left a strong impression of the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The beverages at the event were unique to the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The smells at the event were representative of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
When I listened to the music at the event, I was reminded of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The event provided a good view of the surrounding of the local area.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The architecture at the venue was representative of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
When I smelled the surroundings at the event, I was reminded of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The beverages at the event were part of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The music played at the event was unique to the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree

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The food at the event was consistent with the image of the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	○	○	○	○	○	○	○

The music at the event left a strong impression of the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	○	○	○	○	○	○	○

The smells at the event were uniquely part of the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	○	○	○	○	○	○	○

The beverages at the event were representative of the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	○	○	○	○	○	○	○

The music at the event was consistent with the image of the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	○	○	○	○	○	○	○

The sights at the event were unique to the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	○	○	○	○	○	○	○

The food at the event left a strong impression of the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	○	○	○	○	○	○	○

The smells at the event were consistent with the image of the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	○	○	○	○	○	○	○

The beverages at the event left a strong impression of the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	○	○	○	○	○	○	○

The food at the event was unique to the local culture.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The interior design and decorations at the event were representative of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The smells at the event left a strong impression of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The food at the event was representative of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The beverages at the event were consistent with the image of the local culture.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
When I looked around the event, I was reminded of the local culture.	○	○	○	○	○	○	○

Add Block

▼ Block 8   Block Options ⌄

Q12 In the following section, you will be asked to answer your satisfaction level of the most recent live sporting event you attended, and how the event affected your level of familiarity with the local area. Please give us your most sincere answers.

⚙

Add Block

▼ Block 7   Block Options ⌄

Q13

On a scale of 1 - 7 (1= Strongly Disagree; 7= Strongly Agree), please assign a rating to the statements below by choosing the response that most accurately describes the way you feel. **Your answers should be based on the most recent event you attended.**

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Compared with other sporting event experiences, I was very satisfied with the sporting event.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
My personal experience at the sporting event was pleasant.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Based on all my personal experience at the sporting event, I was very satisfied.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I am interested in returning to the venue for other sporting events.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I became more knowledgable of the local culture after attending the event.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I have come to know more than others about the local culture after attending the event.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The local culture feels more familiar to me having attended the event.	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I feel closer to the local culture having attended the event.	○	○	○	○	○	○	○

Add Block

▼ Block 5   Block Options ∨

Q14 The following section includes demographic questions. Please select answers that best describe you.

⚙

Add Block

▼ Block 2   Block Options ∨

Q15   What is your gender?

⚙
            ○ Male
⁂
            ○ Female

            ○ Other

Q16   Please tell us your age.

⚙
            ○ 18 - 29

            ○ 30 - 49

            ○ 50 - 69

            ○ 70 or older

Q17   What is your ethnicity?

⚙
            ○ Hispanic

⁂
            ○ Black or African American

            ○ American Indian or Alaska Native

            ○ Asian

            ○ White

            ○ Other

Q18

⚙

✱

What is your household income?

○ Less than $15,000

○ $15,000 - $34,999

○ $35,000 - $74,999

○ $75,000 - $99,999

○ $100,000 - 149,999

○ $ 150,000 or more

Add Block

▼ Block 4   Block Options ⌄

Q19

⚙

Your survey has been submitted successfully.

Below is your MTurk confirmation code:

${e://Field/confirmation_code}

To receive payment for participation, please enter this validation code when you submit this HIT.

Add Block

⚠ **End of Survey**   Survey Termination Options...