The Servicescape in the Fitness Center: Measuring Fitness Center’s Services

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Abstract
Since fitness centers rely heavily on the physical environment of their service, an understanding of the impact of the physical environment on the participants is vitally important. Despite the importance of the servicescape within the fitness center, no conceptual or empirical research has been attempted that might conceptualize and measure the servicescape in a fitness center. The purpose of this study is to gain a better understanding of what elements affect consumers’ perceptions of the servicescape within the participants in fitness centers. After conducting an item analysis and an exploratory factor analysis. An eight-factor solution emerged and was found to be statistically and conceptually sound. The eight factors are as follows: (a) accessibility, (b) facility layout, (c) facility design, (d) equipment condition, (e) ambience, (f) facility system, (g) signage, and (h) social factor. The results were positive in that the new scales that were designed to measure important factors that comprising servicescape for fitness center appeared to possess sufficient reliability and validity to encourage their further testing in other fitness centers.

Keywords: servicescape, fitness centers, evaluation, physical environment
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Introduction

According to the international Health, Racquet, and Sportsclub Association (IHRSA, 2013), there has been significant growth in terms of the number of gyms, health clubs, recreation and other fitness centers and the number of people who join them. In 2005, there were around 26,000 fitness centers in U.S., a number that gradually increased in the subsequent years. In 2012, there were 30,500 fitness centers in US. in January 2013, approximately 58.5 million people in U.S. were attending a gym, health club, or fitness center (IHRSA, 2013).

The media, government and medical community encourage the public to be active and exercise. Along with the growing concern around the public health issue of obesity, these movements have greatly aided the growth of the fitness industry.

In order to attract customers and keep them coming back to fitness centers, service providers need to not only understand how customers evaluate the service environment; they also need to seek ways of differentiating themselves from competitors by meeting the needs and demands of their customers. Thus, the success of service sector in the fitness industry will be determined by the quality of the service environment for the customers.

Servicescape refers to “the environments in which service is delivered and where the firm and the customer interact, and any tangible commodities that facilitate performance or communication of the service” (Bitner, 1992; Zeithaml & Bitner, 1996; Zeithaml & Bitner, 2009, p.313). The servicescape has been a vital concept for affecting customer’s behaviors. It is considered to be facilitator that adds to or hinders the behavior of both employees and customers in performing their activities in service areas (Parish, Turner, Berry, & Lam, 2008; Siddiqui & Tripathi, 2011). Service providers should offer environments that both improve consumers’ experiences and facilitate operational ease and promote the overall efficiency of the firm (Hoffman, Kelly, & Chung, 2003).

The study of the servicescape has been conducted in environmental psychology (Dován & Rossiter, 1982; Mehrabian & Russell, 1974) and various business contexts including: banks (Hui, Dube, & Chebat; 1997; Thuku, 2013), retail stores (Baker, Levy, & Grewal, 1992; Dován & Rossiter, 1982; Donovan, Rossiter, Marcoolynn, & Nesdale, 1994; Milliman, 1982, Spranenber, Crowley, and Henderson, 1996), restaurants (Rys,

Though several studies in environmental psychology, marketing, health, and sports literature have examined the servicescape, little work has been done within the context of fitness and sports centers.

Since fitness centers rely heavily on their physical environment, an understanding of the impact of the physical environment on the participants is vitally important. Despite the importance of the servicescape within fitness center, no conceptual and empirical research has been attempted to conceptualize or measure the servicescape in a fitness center.

Therefore, the research presented here is intended to provide a conceptual framework of consumer perceptions of the servicescape of a fitness center. The purpose of this study is to gain a better understanding of the concepts of the servicescape and what factors affect consumers’ perceptions of the servicescape within fitness centers. More specifically, the studies examine the underlying factors contributing the structure of the servicescape in fitness related facilities and they investigate both the validity and reliability of the servicescape measure.

**Literature Review**

*Conceptualization of the Servicescape*

Through very early research on the servicescape, Bitner (1992) described the servicescape as the built environment but he also allowed for consideration of the atmospherics of that environment. This definition has been referred to as the man-made physical environment that did not include conversely the natural or social environment (Wakefield and Blodgett, 1994). Later, the term “servicescape” was considered as physical evidence of the business where a service is offered and consumed as well as any tangible goods or items that facilitate achievement or communication of the service (Baker, 1996; Kurtz et al 1998; Zeithaml & Bitner, 2009). This definition of the servicescape focuses on all of the physical facilities where the service is performed, delivered, and consumed, and expands the servicescape. Recently, the concept of the
servicescape includes “everything that is physically present around the consumer during the service encounter transaction” (Hightower and Shariat, 2009, p 381). This definition means that the servicescape is more than just built physical surroundings; it can be anything observable that affects customers’ perceptions or behaviors.

The importance of the servicescape to consumers is dependent upon what service is provided and how consumers consume it (Zeithaml and Bitner, 2009). Zeithaml and Bitner (2006) also provide examples of physical facilities from the customer’s point of view. Physical facilities vary throughout different service contexts. Facility driven services such as hotels, hospitals, resorts, and child care centers provide a wealth of physical evidence while other services such as insurance, express mail, and banks communicate limitedly through physical evidence.

According to Zeithaml and Bitner (2009), the servicescape can take the role of a package, a facilitator, a socializer, and a differentiator. The servicescape as a package packs the service and plays important role in creating a service image that the service provider is intended for. As a facilitator, the servicescape helps customers enhance both their activities and performance in the service settings. It provides customers with proper signage and cues on how the service works. Another role of the servicescape is to act as a socializer in assisting both the customers and employees to socialize within service environment. The servicescape helps to facilitate interaction among customers as well. The final role of servicescape is as a differentiator. The servicescape may distinguish the organization from its competitors through design, layout, equipment, or accessibility. Companies may also change the servicescape to attract new market segments (Zeithaml and Bitner, 2009).

**Servicescape in Leisure, Sport, and Fitness Industry**

Customers’ perception of the servicescape in the leisure, sport, and fitness industry a strong influence on their overall service experiences. Usually customers spend more time in the physical environment offered by leisure, sport, and fitness centers compared to other service industry environment such as banks, insurance companies, and fast-food restaurants.

Wakefield and Blodgett (1994) assessed the effects of consumers’ perceptions of the servicescape on their levels of excitement that consumers experience with the leisure service and their subsequent repatronage intentions. It is suggested that the servicescape plays a vital role to either improve or reduce the customers’ level of
excitement and satisfaction. Wakefield and Blodgett (1994) used two important aspects of the servicescape developed by Bitner (1992): (1) spatial layout and functionality and (2) aesthetic appeal.

In another study, Wakefield and Blodgett (1996) further examined the effects of servicescape components including layout, accessibility, facility aesthetics, electronic equipment, seating comfort, and cleanliness on the perceived quality of the servicescape. They built upon Bitner’s (1992) servicescape framework in three different settings: major college football stadiums, minor league baseball stadiums, and casinos. The servicescape is strongly related with the amount of time customers want to spend in the sport facilities and casinos and their repatronage behaviors. It was suggested that the servicescape is a major determinant of customers' length of stay at the location and intentions to revisit when customers go to a service setting primarily for hedonic consumption. Wakefield and Sloan (1995) developed the term “sportscape” and found that the stadium design and related physical environment directly influence spectators’ behavior. While team loyalty strongly affects facility attendance, sportscape elements are also directly related to the spectators' desire to stay and attend games at the facilities. In a similar study, Hightower, Brady, and Baker (2002) examined the relationship between the servicescape in a facility driven service (i.e. minor league baseball stadium) and key service variables (i.e. involvement, waiting time, service quality, value of the behavioral intentions. Hightower et al., (2002) focused the ambience, design and social factors of the servicescape and suggested that the servicescape is effective in enhancing service outcomes and customers' behaviors.

Within sport and recreation management literature, little research on servicescape in fitness centers has been conducted. Existing literature has just focused on managing a fitness facility including facility operation, a clean and well-maintained environment, and servicing the members (Macintosh and Alison, 2007). These studies have been investigated not as a whole physical environment such as servicescape concept, but as part of facilities or service quality.

**Dimensions of the Servicescape**

The elements of the servicescape entail all of the physical evidence in the service settings (Zeithaml and Bitner, 2003). These elements may include both indoor attributes such as interior design, equipment, layout, offices, air quality, and temperature as well as outdoor attributes such as the building’s exterior design, landscape, and parking. In
addition, other tangible evidence such as business cards, employee dress, reports and web pages also are included in the elements of the servicescape (Zeithaml and Bitner, 2003).

A review of servicescape literature suggests that the elements of the servicescape can vary according to the service context, and the importance of the servicescape can also differ depending on the type of service offered (i.e., Zeithaml & Bitner, 2009; Wakefield & Blodgett, 1994).

In a conceptual article, Bitner (1992) defined servicescape as the “built environment” which is divided into three dimensions: (1) ambient conditions (i.e. temperature, air quality, noise, odor and music); (2) space function (i.e. layout, equipment, and furniture) or the way the equipment and furniture are placed and enhance consumers’ experience; and (3) other items such as signs, symbols and artifacts.

In an empirical study, Baker, Levy, and Grewal (1992), extended the retail store atmospherics literature by investigating the different aspects of store atmospherics and their influence on retail patronage decisions. They suggested that a store environment consists of three factors: (1) ambience, (2) function/aesthetics and design, and (3) social factor.

Siddiqui and Tripathi (2011), on the other hand, identified four dimensions of servicescape: (1) general interior, (2) social factor, (3) internal facilities, and (4) exterior facilities. Similarly, Rosembaum and Massiah (2011) expanded the concept of Bitner’s servicescape and suggested four dimensions: (1) physical dimension (i.e. ambient condition); (2) social dimension (i.e. employee and customers); (3) socially symbolic dimension (i.e. ethnic signs and symbols); and (4) natural dimension (i.e. being away).

Since fitness and health centers rely heavily on the efficacy of the servicescape, an understanding of the impact of the physical environment on the consumer is vitally important. The proposed model for this study includes: (1) accessibility/convenience; (2) facility space/layout; (3) facility design; (4) equipment conditions; (5) ambience; (6) facility System; (7) signage, and (8) social factors.

**Accessibility/Convenience**

Within sport and recreational service settings, accessibility elements considered as the way furniture and equipment, service areas, and passageways are managed, and the spatial relationships among these elements (Bitner, 1992). Convenient facilities
means that the location is not only close to it patrons, but also easily accessible. A more convenient location encourages frequent users to visit more often and repeat workouts. Also ample parking space and convenient local road can make it easy to get to fitness centers. When parking is conveniently located and managed, using parking lots may not be important issue as long as it does not impede users from access to facilities. If parking is accessible to people, it is easy for them to reach it. It provides for easy and entry and exit to the facility, increasing the quality of the patron’s visit.

**Signage**

Proper signage can be used to avoid danger or risks as well as to reduce or enhance customers’ experience. In particular, proper signage helps new visitors find their way around facilities and use existing equipment and amenities properly. Buildings and facilities should be identified properly by the signage or symbol.

**Facility Space/Layout**

An effective building layout facilitates users’ activities and provides a more comfortable environment for the service. Effective facility layout can also make ancillary facilities or services more comfortable. As a result, customers spend more time at the facility and experience greater satisfaction with the primary service (Wakefield & Blodgett, 1996). Effective layout in discount stores, banks, casinos, and stadium facilitates customers’ functional needs and hedonic needs (Baker, Grewal, & Parasuraman, 1994; Rinne and Swinyard, 1992; Wakefield & Blodgett, 1996). Effective facility layout is necessary to enhance consumers’ performance in fitness centers as well as to increase their pleasure. In addition, a well-designed layout reduces the amount of time spent waiting to use particular elements of the facility which tends to increase patron satisfaction.

**Facility Design**

Facility design includes the exterior design, interior design and décor that influence the attractiveness of the servicescape (Wakefield & Blodgett, 1996). Customers usually encounter the exterior of the building and construct a first impression of the facility as customers enter into the facility. Customers also spend some period of time sensing the interior of the facility. These perceptions are more likely to influence customers’ attitude toward the facility (Baker et al., 1988; Kerin, Jain & Haward, 1992, Wakefield & Blodgett, 1996)

**Equipment condition,**
Some equipment is used to deliver and enhance the primary experience in service settings. For example, high quality of carts at a golf course can have a positive impact on customers' overall perceptions of the servicescape. If such equipment is auxiliary, it may be used to transport customers to a place for a particular activity as the primary service offering. Updated equipment also provides an additional experience for the customer. Safe and well-maintained equipment may also help customers to perform their activity. Most fitness centers are quite equipment dependent. The condition of the equipment is critical in delivering the image of the fitness center to users. Outdated workout machines and technology might influence the image of the fitness center that customers have. Hoffman (2003) indicated that a significant portion of servicescape issues could be attributed to mechanical problems with the equipment which inconvenienced the customers.

**Ambient Condition.**

Customers may generally not notice ambient conditions as long as the overall atmosphere remains pleasant (Hightower, 2010). Cleanliness (Baker, 1986), noise (Baker, 1986), and music (Baker, Levy & Grewal, 1992; Oakes, 2000; Yalch & Spangenberg, 2000) are included in ambient factors. Appropriate background noise levels and music may not directly contribute to customers' activities, but they do enhance the customers' overall experience. Cleanliness is also an important part of the servicescape measurement, especially when customers must spend some time in service setting (Lucas, 2003; Wakefield & Blodgett, 1996). Cleanliness has also become an important criterion in measuring consumers' perceptions of retail stores, restaurants, casinos, stadiums, recreation centers and services (Cavnar, et al., 2004; Garry & Sansolo, 1993; Vilnai-Yavetz & Gilboa, 2010; Lucas, 2003; Martin, 1986; Miller, 1993; Wakefield & Blodgett, 1996; 1999).

**Facility System**

The condition of the atmosphere for a particular service offering has an influence on customers' behavior. Temperature and lighting in fitness center may attract members or discourage them from returning to the facility. The temperature and humidity of a fitness centers is extremely important because these affect customers' performance. For facility-driven services such as fitness centers, the atmosphere may be only the tangible cue consumers have to process. The use of the right lighting has also been proven to affect the consumer's behaviors (Levy & Weitz, 2004, Park & Farr, 2007; Summer & Herbert, 2001)
Social factors

As a whole social aspects have been overlooked in servicescape literature. Bitner (1992) excluded social aspect as an element of servicescape. Tombs and McColl-Kennedy (2003) pointed that most of servicescape literature focuses on the tangible evidence of the servicescape. They suggested that the component of customer interaction within service settings contribute to shaping the service experience and need to be incorporated. The social factor of the servicescape is defined as “the people component of the physical environment” (Hightower, 2010, p83). Rosenbaum and Messiah (2011) stressed the social dimension of servicescape and expanded the servicescape concept. More recent literature has identified that the presence of customers or employees can influence customers’ behaviors (Cockrill, Goode, & Emberson, 2008; Hightower, 2010; Tombs & McColl-Kennedy, 2003; Wakefield & Blodget, 1999).

![Diagram of the Proposed Research Model]

**Figure 1.** The Proposed Research Model.
Methodology

Sample
191 individuals completed a survey. Of these 179 individuals, 13 participants were excluded because they did not correctly answer a dummy question, which identified and screened inappropriate responses. This resulted in a final sample of 178 participants, of whom 117 (66%) were male and 60 (33.7%) were female. Their ages ranged from 19 to 46, with a mean age of 23 (SD = 3.99).

Questionnaire
The development of the servicescape measure proceeded in two phases: (1) a qualitative item development phase in which interviews were used to explore the construct of interest; (2) instrument development and validation using traditional questionnaires and statistical analyses. All items for servicescape measurements were derived theoretically based on the literature review and interview process. Each interview was held for 10 minutes. Participants were asked to help the investigator define “servicescape” and explore the physical environment they felt were important in determining how they evaluated servicescape in fitness center. Once all interviews were conducted, the responses given by participants were reviewed in order to begin constructing items for the measure. Statements made by participants on topics other than physical environment or servicescape were removed from this analysis. On the basis of these procedures and literature review, a total of 31 items were generated to measure servicescape in fitness centers (see Table 1). Items were placed on a 7-point Likert-type scale. Individuals were asked to indicate how strongly agreed or disagreed with each item.

Statistical Analysis
In order to examine the underlying factors contributing to the structure of the servicescape in fitness centers and to investigate the psychometric properties of the servicescape measure, item analysis, exploratory factor analysis, and internal consistency analysis were conducted.

Following the administration of all measures to the entire sample, statistical analyses were used to evaluate the structure of the servicescape and performance of individual factors. Descriptive statistics were conducted at the item level, including frequency distributions, means, standard deviations and item intercorrelations. This
information was used to eliminate items with poor psychometric properties from the scale.

Exploratory factor analysis (EFA) was used to identify the servicescape’s factor structure and to further identify poorly performing items for elimination. In order to determine the fit of the finalized factor model to the data matrix, a confirmatory factor analysis was necessary. However, in this study, only an exploratory factor analysis was conducted.

Finally, for the reliability of the measures of servicescape, the internal consistency of scales was assessed via computation of classical internal consistency coefficients which is Cronbach’s alpha.

**Results**

*Item Analysis and distribution properties*

All skewness and kurtosis were determined to be between -1 and 1, except for the skewness (-1.27, -1.07, and -1.05) of three items and kurtosis value (1.75 and 1.31) of two items. No items were eliminated based on skewness and kurtosis. These results also indicated that the data were normally distributed for exploratory factor analysis (Tabachnick & Fidell, 2001). Item means ranged from 4.69 to 5.92. A mean close to the center of the range of possible scores is desirable. If a mean were near one of the extremes of the range, then the items might fail to detect the certain value of the construct (DeVellis, 2003). The standard deviation of all items ranged from 1.19 to 1.73. Inspection of variability statistics revealed that no item had a standard deviation of more than 2.0.

*Exploratory Factor Analysis*

Exploratory factor analysis (EFA) with a varimax rotation was conducted. In order to decide the number of factors to be extracted, there are four criteria: (1) all factors with eigen values greater than 1.0; (2) the scree test examining the graph of the eigen values; (3) the percentage of total variance explained; and (4) the interpretability of the factors extracted. (Tabachnick & Fidell, 2012). Eight possible factors with eigenvalues greater than 1.0 emerged. After conducting item analysis and exploratory factor analysis, Eight-factor solution was emerged and found to be statistically and conceptually sound. These eight factors collectively accounted for 77.1% of the variance. The scree plot indicated factor solutions ranged from one to eight factors. Factor loadings ranged from 0.338 to 0.930 (See Table 1).
## Table 1. Factor loading, Cronbach a, and Item total Correlation.

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor Loading</th>
<th>Cronbach a</th>
<th>Item-to-total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility/Convenience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitness center has ample parking.</td>
<td>.648</td>
<td>.618</td>
<td></td>
</tr>
<tr>
<td>Fitness center is easily accessible</td>
<td>.792</td>
<td>.750</td>
<td></td>
</tr>
<tr>
<td>to me.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local roads make it easy to get to</td>
<td>.758</td>
<td>.504</td>
<td></td>
</tr>
<tr>
<td>fitness center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitness center parking is</td>
<td>.648</td>
<td>.712</td>
<td></td>
</tr>
<tr>
<td>conveniently located.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signage</td>
<td></td>
<td>.902</td>
<td></td>
</tr>
<tr>
<td>The signs in fitness center provide</td>
<td>.865</td>
<td>.823</td>
<td></td>
</tr>
<tr>
<td>adequate direction.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The signs used are helpful.</td>
<td>.843</td>
<td>.823</td>
<td></td>
</tr>
<tr>
<td>Facility Layout</td>
<td></td>
<td>.867</td>
<td></td>
</tr>
<tr>
<td>Fitness center is expansive and</td>
<td>.776</td>
<td>.751</td>
<td></td>
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<tr>
<td>large in scale.</td>
<td></td>
<td></td>
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<tr>
<td>Fitness center is designed for all</td>
<td>.577</td>
<td>.671</td>
<td></td>
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<tr>
<td>levels of ability.</td>
<td></td>
<td></td>
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<tr>
<td>Fitness center have more than</td>
<td>.812</td>
<td>.798</td>
<td></td>
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<tr>
<td>enough space for me to be</td>
<td></td>
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<td></td>
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<tr>
<td>comfortable.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fitness center is designed to</td>
<td>.660</td>
<td>.663</td>
<td></td>
</tr>
<tr>
<td>minimize my waiting time.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility Design</td>
<td></td>
<td>.920</td>
<td></td>
</tr>
<tr>
<td>The buildings’ exterior layout is</td>
<td>.906</td>
<td>.837</td>
<td></td>
</tr>
<tr>
<td>pleasing.</td>
<td></td>
<td></td>
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<tr>
<td>The buildings are attractive.</td>
<td>.930</td>
<td>.882</td>
<td></td>
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<tr>
<td>The buildings in fitness center are</td>
<td></td>
<td></td>
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<tr>
<td>decorated in an attractive fashion.</td>
<td></td>
<td></td>
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<tr>
<td>The buildings’ interior layout is</td>
<td>.914</td>
<td>.877</td>
<td></td>
</tr>
<tr>
<td>pleasing.</td>
<td></td>
<td></td>
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<tr>
<td>Equipment/Facility Condition</td>
<td></td>
<td>.904</td>
<td></td>
</tr>
<tr>
<td>The equipment used is of high quality.</td>
<td>.603</td>
<td>.791</td>
<td></td>
</tr>
<tr>
<td>The equipment used is always in</td>
<td>.796</td>
<td>.838</td>
<td></td>
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<tr>
<td>good working condition.</td>
<td></td>
<td></td>
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<tr>
<td>Fitness center is well equipped with</td>
<td>.388</td>
<td>.606</td>
<td></td>
</tr>
<tr>
<td>surrounding facilities (lounge,</td>
<td></td>
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<tr>
<td>concession).</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The facilities and equipment are</td>
<td>.696</td>
<td>.792</td>
<td></td>
</tr>
<tr>
<td>safe.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Physical facilities are well</td>
<td>.754</td>
<td>.821</td>
<td></td>
</tr>
<tr>
<td>maintained.</td>
<td></td>
<td></td>
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<tr>
<td>Ambient Condition</td>
<td></td>
<td>.783</td>
<td></td>
</tr>
<tr>
<td>The background noise level at fitness</td>
<td>.700</td>
<td>.555</td>
<td></td>
</tr>
<tr>
<td>center is acceptable.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Fitness center is kept clean.</td>
<td>.366</td>
<td>.635</td>
<td></td>
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<tr>
<td>Fitness center's atmosphere is</td>
<td>.565</td>
<td>.696</td>
<td></td>
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<tr>
<td>comfortable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The music used in fitness center</td>
<td>.744</td>
<td>.499</td>
<td></td>
</tr>
<tr>
<td>makes workout environment a more</td>
<td></td>
<td></td>
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<tr>
<td>enjoyable place.</td>
<td></td>
<td></td>
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<tr>
<td>Facility System</td>
<td></td>
<td>.856</td>
<td></td>
</tr>
<tr>
<td>Lighting levels are comfortable.</td>
<td>.519</td>
<td>.563</td>
<td></td>
</tr>
<tr>
<td>Temperature and humidity are</td>
<td>.770</td>
<td>.758</td>
<td></td>
</tr>
<tr>
<td>comfortable.</td>
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<tr>
<td>Air quality is acceptable.</td>
<td>.844</td>
<td>.795</td>
<td></td>
</tr>
<tr>
<td>Heating, Ventilation and Air-</td>
<td>.583</td>
<td>.688</td>
<td></td>
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<tr>
<td>conditioning (HVAC) system are well</td>
<td></td>
<td></td>
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<tr>
<td>maintained.</td>
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<tr>
<td>Social Factor</td>
<td></td>
<td>.906</td>
<td></td>
</tr>
<tr>
<td>The employees are very helpful.</td>
<td>.752</td>
<td>.781</td>
<td></td>
</tr>
<tr>
<td>The employees are friendly.</td>
<td>.805</td>
<td>.780</td>
<td></td>
</tr>
<tr>
<td>The customers are very helpful.</td>
<td>.924</td>
<td>.822</td>
<td></td>
</tr>
<tr>
<td>The customers are friendly.</td>
<td>.879</td>
<td>.774</td>
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</tbody>
</table>
Based on the data gathered from our sample, the study revealed that there are eight key factors that comprise the servicescape for fitness centers. These factors are as follows: (a) accessibility/convenience, (b) facility layout, (c) facility design, (d) equipment condition, (e) ambience, (f) facility system, (g) signage, and (h) social factor.

**Internal consistency**

Cronbach’s alpha was calculated for each of the factor score estimates obtained in order to confirm the reliability of scores. Cronbach’s alpha for the eight factors ranged from 0.783 to 0.920. Nunnally and Bernstein (1994) suggested that an alpha exceeding .70 is sufficient as the level of reliability. Cronbach’s alphas for all factors exceeded 0.70. Item total correlation also was conducted on the original 31 items by examining the correlation of each item with the mean score of its representative factors. The items with low item-total correlations within each of the eight factors were deleted as an initial attempt to reduce the length of the measure and also to retain the better items within each of the eight factors. Item-total correlations within each of the eight factors ranged from 0.50 to 0.75 (accessibility), .82 to 82 (signage), 0.66 to 0.79 (facility layout), 0.67 to 0.88 (facility design), 0.60 to 0.83 (equipment condition), 0.49 to 0.69 (ambient condition), 0.56 to 0.79 (facility system), and 0.77 to 0.82 (social factor), respectively. Nunnally and Bernstein (1994) suggested that an item-total correlation of .30 was appropriate as a criterion for deleting items. All items had high item-total correlation within each of the eight factors (see Table 1).

**Discussion and Conclusion**

After conducting item analysis and exploratory factor analysis, eight-factor solution emerged and was found to be statistically and conceptually sound. The eight factors are as follows: (a) accessibility, (b) facility layout, (c) facility design, (d) equipment condition, (e) ambience, (f) facility system, and (g) signage, and (h) social factor.

The results were positive in that the new scale that was designed to measure factors that comprise the servicescape for fitness center appeared to possess sufficient reliability and validity to encourage their further testing in fitness centers.

This study is significant because a better understanding of the servicescape in fitness centers allows sport facility managers to increase the level of the service that is delivered to customers.
Servicescape elements are important in designing, planning, and constructing recreational centers, fitness centers, health centers and other fitness related centers. Eventually, a better understanding of the servicescape allows facility managers to integrate the servicescape into service offerings, practices, and process.

The present study expands the concept of the servicescape. The servicescape specifically in fitness centers is unique in several respects. First, in a fitness center, the servicescape is service itself. Fitness centers are facility-driven services which provide environments for the activities conducted therein. Therefore, the servicescape is, in fact, a core product. Second, the servicescape in this context is equipment dependent. Unlike previous studies which focused on only the built environment of the servicescape, this analysis employed a broader construct of the servicescape. Unlike most other service providers, fitness centers use variety of workout or training machines and tools which facilitate users’ health and fitness. Also fitness centers provide the club’s equipment with new technology to exercisers to increase motivation by providing interactive workout tools and tracking the effectiveness of the workout; therefore, equipment must be included within any examination of the servicescape in fitness centers. Third, the accessibility and convenience factor in servicescape is a key element for the fitness centers because health and fitness centers being open 24 hours and conveniently located increase the probability that users will take advantage of the facility to the greatest extent (International Health, Racquet & Sportsclub Association, 2013). Easy accessibility and convenient locations for fitness are vital to satisfy customers. Finally, this study added a review of the importance of social factor as exemplified by the importance of the physical environment of fitness centers, thereby bridging the general concept of servicescape.

There is a limitation to this study. One of the primary concerns is that since this study is a construct development of the servicescape for fitness centers, it serves as an initial step in a process of further studies. Therefore, this study should be evaluated with the understanding that the construct continues to require further development, refinement, and study. In other words, despite the extensive review of literature and the use of interviews to develop the construct for the current study, additional empirical research is still needed. Because this was a preliminary examination of a new instrument, further study is required to confirm the validity of this instrument. As suggested by Clark and Watson (1995), a series of investigations is required to
determine the construct validity of a new instrument, such as the servicescape scale in fitness industry settings.

Although several researchers have conducted studies designed to understand the concepts and development of measurement of the servicescape in traditional business areas, little studies have attempted to conceptualize the servicescape in fitness centers. Therefore, this newly developed model can be utilized as a conceptual background for future studies of fitness centers.

There are also several practical implications of this study for facility-driven fitness service providers. First, the reliable and valid measurement scale, as developed in this study, is useful for examining users’ perceptions of the servicescape in fitness centers and can also serve as a diagnostic and prescriptive tool. As Wakefield and Blodgett (1996) mentioned, servicescape plays a critical role in facilitating customers’ behavioral intentions to both remain in and return to particular service settings. It allows practitioners to more efficiently evaluate each element of the servicescape to ensure that users are satisfied with the entire physical environment. It also provides useful information to develop new facility-driven fitness centers in a manner that is more likely to lead to enhanced consumer satisfaction.

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