

# Investigating the Importance of Sports Facilities & Staff for Football Fans

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## **Abstract**

### a) Purpose

This study seeks to investigate the importance of facilities and staff for football fans in Greece.

### b) Design/methodology/approach

A survey was carried out during two matches of Superleague games with a convenience sample of 312 spectators. A structured questionnaire was used with scales based on previous research.

### c) Findings

Factor analysis revealed four reliable factor dimensions: facilities design; staff; facilities maintenance, and quick & easy access. Staff and quick & easy access are shown to be the most important dimensions for respondents followed by the other two. Results also indicated that there are significant differences in the importance assigned to these 4 factor dimensions among different levels of age; education; income, and marital status.

### d) Research limitations/implications

This study is limited to one sport and on a convenience sample of football fans. Future research can validate further these findings and increase their generalisability.

### e) Practical implications

The results of this study challenge sport managers to manage effectively the design of the stadium; the processes of entry and exit of fans; the environment of the game; and the quality of stadium facilities.

**Keywords:** *Sport services, Football, Facilities, Staff, Sportscape*

## **1. Introduction**

The sportscape (or physical evidence) and people (personnel and customers) are proved to be two of the most important dimensions of the services marketing mix, the 7Ps. In spectator sports, sports facilities are commonly believed to have a positive influence on attendance levels (Hill & Green, 2000; Dale et al., 2005). Greenwell et al. (2002) suggest that managers who wish to increase attendance of professional soccer should improve certain service elements (facility aesthetics, stadium accessibility, and seating comfort) to satisfy the needs of customers with low levels of team identification. Also, the quality of personnel has been shown to influence spectators of professional soccer in their satisfaction from the service and their repurchase intentions (Theodorakis and Alexandris, 2008). Although a number of researchers have shown that facility factors (Wakefield & Blodgett, 1999; Wakefield & Sloan, 1995; Zhang et al., 1998) and personnel factors (Zhang et al., 1997; Zhang et al., 1998) are significantly related to customer behavior, their importance for football fans has not been investigated and the concepts of sport facilities and staff have not been analysed adequately. The purpose of this study is to analyse those two concepts and their importance for Greek professional football fans. This paper is structured as follows: we begin with a literature review; then we explain the methodology used; we present the results; we outline managerial implications, and finally we present limitations and suggestions for further research.

## **2. Literature review**

A stream of research that follows the work of Langeard et al., (1981) argues that customers experience three interrelated components of the service experience: the inanimate environment; service personnel, and a bundle of service benefits. Also, many others, acknowledge that customers' service quality perceptions are influenced by their interaction with employees (i.e.,

functional quality), the perceived outcome of the service encounter (i.e., technical quality), and the service firm's physical environment (Gronroos, 1982; Lehtinen and Lehtinen, 1982; 1991; Rust & Oliver, 1994). Physical surroundings can help determine whether customers approach or avoid the service provider, behaviours which contribute to the level of customer patronage and the level of customer spending (Bitner, 1992).

Service quality research has analysed extensively the role of physical facilities and staff. Wakefield et al., (1996) have empirically examined a relationship between spectators' perceptions of the stadium quality and pleasure. Wakefield and Blodgett (1999) report a positive link between the physical environment and affect. Furthermore, Turley and Fugate (1992) have argued that there is a strong link between service quality and affective responses as outcomes of facility perceptions especially in facility-driven services such as entertainment facilities. Also, based on a review of the servicescape literature, research shows that the physical environment is evaluated on its ambiance and layout, as well as consumer perceptions resulting from physical cues (Baker, 1986; Bitner, 1992). Finally, others argue that staff or service personnel facilitate processes that deliver the core product and either add to or detract from the customer's experience (Chelladurai & Chang, 2000).

In sports, it has been argued that the inanimate environment is represented by the facility itself, the staff who interact with customers are considered service personnel, and the bundle of service benefits is the core product or game itself (Greenwell et al, 2002). Sport facilities have been shown to be very important for sports fans. King (1999) finds that sports fans have come to expect comfort and convenience from sporting facilities, making it necessary for teams to build and renovate facilities at record speed. Furthermore, Greenwell et al, (2002) argue that poorly designed sports facility can have negative results on an organisation's bottom line because it affects attendance

levels. Cannella (1999) observed that the lack of stadium atmosphere and amenities has often been blamed for low attendance. Several studies reveal clear relationships between perceptions of the physical environment and increase willingness to attend athletic events (Hansen & Gauthier, 1989; Freiling, 1997). In football, Hill and Green (2000) established that positive perceptions of the "sportscape" enhanced future attendance intentions for some spectators at games of Australian Rules Football while Hightower et al (2002) found that the servicescape does have a significant influence on consumer behavioral intentions.

Furthermore, the quality of staff is also very important in sports. According to Greenwell et al., (2002), the service personnel is one of the factors of the environment that are very important in a sport setting. In sport events, service personnel take the roles of ticket sellers, concessionaires, merchandisers, ushers, and customer representatives (McDonald, Sutton, & Milne, 1995). Theodorakis and Alexandris (2008), showed that the service dimension of "personnel" predicted service satisfaction and repurchase intentions of spectators of professional soccer. Others have argued that various personnel factors are significantly related to customer behavior (Zhang et al., 1997; Zhang et al., 1998). Although a number of researchers have shown the importance of facility and personnel factors (Wakefield & Blodgett, 1999; Wakefield & Sloan, 1995; Zhang et al., 1997; Zhang et al., 1998) in sports, their importance for football fans has not been investigated and the concepts of sport facilities and staff have not been analysed adequately. The purpose of this study is to analyse those two concepts and their importance for Greek professional football fans.

### **3. Methodology**

A survey was carried out with a structured questionnaire. The instrument consisted of several subscales designed to measure the importance of the service dimensions of facilities and staff for Greek football fans

during the football games. The scales used were based on prior research and all items were adapted so that the item content matched the football industry. The scale of "facilities design", was based on the conceptual work of Greenwell et al. (2002) and Hightower et al. (2002) and used eight items. The Staff scale was compiled from the work of Howat et al., (1996) and Hightower et al., (2002) and consisted of 5 items. The remaining 2 scales measured Facilities Maintenance and Quick & Easy access and were based on the work of Wakefield & Blodgett, 1994; Bitner, 1992, and Baker, 1986). The measures used in the current study are presented in Table I together with findings.

The sample consisted of a convenience sample of 312 fans selected randomly during two football games, one in Athens and the second one in Tripoli between teams of the Greek Superleague. In total, 303 questionnaires were usable. A pre-test was conducted to obtain feedback on the clarity and appropriateness of the questionnaire. Based on the pilot test, some questions were modified to ensure that respondents could fully understand and choose an appropriate answer. Data collection took place during the half-time of the two matches.

## **4. Results**

### *4.1 Sample profile*

Of 303 respondents, 236 (77,9%) were male and 67 (22,1%) were female. A 3,3 % were aged between 15-18 years, 32,6% were 19-24 years old, 38,5% were 25-34, 12% were 35-44 and 13,6% were 45 or older. Also, 15,1% of respondents had a season ticket; 71% were from Athens and 29% were from Tripoli.

### *4.2. Importance of facilities and staff*

In total, twenty items were used to measure the importance of the dimensions of staff and facilities for football fans during game consumption in Greece. Two tests indicated that the data were suitable for factor analysis. The Bartlett's test of sphericity showed a value of 3590.937

with  $p = 0.000$  and the KMO statistics obtained was 0.935. Using varimax rotation, the latent root criterion of 1.0 was used for factor inclusion, and items exhibiting low factor loadings (0.40), high cross loadings (0.40) or low communalities (0.30) were eliminated until a clean and rigid factor structure emerged. Four factor

dimensions were identified: facilities design; staff; facilities maintenance, and quick & easy access. All four scales were reliable since their Cronbach's alpha coefficients ranged from 0.706 to 0.909. Table I presents the results of factor analysis.

**Table I: Factor Analysis results**

Scale	Mean <sub>b</sub>	SD	Factor loadings <sup>a</sup>				Communalities
			1	2	3	4	
<b>Facilities design</b>	<b>3.8</b>	<b>.767</b>					
The architecture is attractive	3.86	.978	.791	—	—	—	.711
The color scheme is attractive	3.61	1.100	.776	—	—	—	.705
The materials used inside are of high quality	3.81	1.059	.743	—	—	—	.698
The style of the interior accessories is fashionable	3.63	1.023	.700	—	—	—	.656
Layout accessibility	3.99	.910	.680	—	—	—	.663
The restrooms are appropriately designed	3.70	1.109	.661	—	—	—	.681
The scoreboard quality is high	3.86	1.032	.517	—	—	—	.509
The physical environment is superior	4.21	.800	.416	—	—	—	.452
<b>Staff</b>	<b>4.07</b>	<b>.787</b>					
I feel like the employees will help me if I need them	4.20	.911	—	.776	—	—	.758
The staff is presentable and easily identified	4.09	.958	—	.757	—	—	.715
The staff is experienced and knowledgeable	4.00	.978	—	.749	—	—	.732
The employees are friendly	4.14	.939	—	.709	—	—	.682
During the game, Stadium's employees deliver service in a timely manner	4.09	.901	—	.706	—	—	.715
The staff number is sufficient for the service provision	3.92	1.003	—	.537	—	—	.590
<b>Facilities Maintenance</b>	<b>3.7</b>	<b>.910</b>					
The temperature at Stadium is pleasant.	3.55	1.158	—	—	.846	—	.791
Stadium has a pleasant smell.	3.75	1.123	—	—	.807	—	.744
Seating comfort	3.58	1.268	—	—	.782	—	.679
The lighting is excellent at stadium	4.22	.908	—	—	.611	—	.557
<b>Quick &amp; Easy access</b>	<b>4.1</b>	<b>.819</b>					
I get through the entrance gates very quickly at Stadium.	4.31	.877	—	—	—	.807	.714
During a home football game, the time I spend waiting for service is minimal.	4.02	.983	—	—	—	.732	.691
<i>Explained variance by factors (%)</i>			47.02	8.14	6.99	5.05	
<i>Cronbach a</i>			.901	.909	.861	.706	

The four extracted factors explained 67.2% of the total variance. All factors have relatively high reliability coefficients ranging from 0.70 to 0.909 and factor loadings are high (0.41). The first factor was labeled “Facilities design” and explained 47.02 % of the variance (eigenvalue = 9.40) with a reliability coefficient of 0.90. The second factor was labeled as “Staff” and accounts for 8.14% of the variance (eigenvalue = 1.62) with a reliability coefficient of 0.909. The third

factor was labeled as “Facilities Maintenance” and explained 6.99% of the variance (eigenvalue = 1.39) with a reliability coefficient of 0.861. The last dimension was named “Quick & Easy access” and explained 5.05% of the variance (eigenvalue = 1.01) with a reliability coefficient of 0.706. Mean scores of respondents show that the factors of staff and quick and easy access are more important than the two factors related to facilities.

4.3 Differences of results among demographic groups

**Table II: Differences in importance of dimensions according to demographic characteristics**

	Facilities design		Staff		Facilities Maintenance		Quick & Easy access	
	F-value	p-Value	F-value	p-Value	F-value	p-Value	F-value	p-Value
Age	8.152	.000**	3.054	.017*	4.335	.002*	1.372	.244
Sex	.403	.526	1.533	.217	4.219	.041*	.186	.667
Marital Status	6.545	.000**	2.101	.100	4.902	.002*	.184	.907
Education	4.093	.018*	.695	.500	1.225	.295	.066	.936
Income	2.753	.043*	1.422	.237	.865	.460	.910	.436
City Size	.645	.423	.230	.632	1.710	.192	1.483	.224

Note - significant up to \*p <0.05, \*\*p <0.001

In order to discover the differences of the importance of the dimensions of sport facilities and staff among the various demographics groups of the sample, one-way ANOVA tests were employed. Results showed that for certain factors there were significant differences, while for others there were no differences. Table II shows the results of the ANOVA tests and reveals that there are significant differences among the different age groups in the importance of “Facilities design”, “Facilities maintenance” and “Staff”. In detail, the age group 45-54 evaluates the “Facilities design” dimension as more important than the other age groups (mean=34.21), followed by the age group of 35-44 (mean=33.73). Similarly, the age group 35-44 evaluates higher (16.71) than all the other age groups the “Facilities Maintenance” dimension. This shows that older fans (35-54) are influenced more by the quality of facilities (design and maintenance) (mean<sub>15-18</sub>=12.80, mean<sub>19-24</sub>=14.58, mean<sub>25-34</sub>=14.85, mean<sub>45-54</sub>=16.21). Also, the age group of 35-44 evaluates the dimension “Staff” higher (mean=26.22) than the other groups (mean<sub>15-18</sub>=24.70, mean<sub>19-24</sub>=23.53, mean<sub>25-34</sub>=24.26, mean<sub>45-54</sub>=25.72).

Results also indicate that importance of “Facilities design” and “Facilities Maintenance” are significantly different according to marital status. More precisely, the divorced pay more attention to “Facilities design” (mean=36.00) than widowed, married or single respondents. The factor “Facilities Maintenance” seems to play an important role with statistically

significant results only for married respondents (mean<sub>single</sub> =14.76, mean<sub>married</sub>=16.38, mean<sub>divorced</sub>=13.00, mean<sub>widower</sub>=12.20).

Furthermore, the respondents’ education level seems to have an impact on the importance of “Facilities design”. More specifically, the higher the respondents’ education is, the lower the importance of “Facilities design” is (mean<sub>high school</sub>=32.39, mean<sub>university</sub>=30.33, mean<sub>master-phdr</sub>=29.74). Finally, the importance of “Facilities design”, differs among all categories of fans according to monthly income (mean<sub>up to 1000€</sub> =29.95, mean<sub>1001€-3000€</sub> =32.07, mean<sub>3001€-5000€</sub> =32.41, mean<sub>above 5000€</sub> =30.44).

## 5. Managerial implications

Results present certain challenges for sport managers. Specifically we observe the following:

- The most important factor in the arena seems to be quick and easy access to the service. As a result, sport managers should make sure that fans do not wait long in lines to come into the stadium and stadium designers should incorporate many entrances and design an effective layout for the stadium.
- The dimension of facilities has a short-term and a long-term aspect. On one hand, the design of the stadium that is done on construction is very important for the long-term. On the other hand,

the present state of facilities including lighting quality, temperature, seating comfort and smell are also very important for spectators. So, stadium managers should be able to cope effectively with both of these facets of facilities' quality.

- Older fans, more than 35 years of age place higher importance in the facilities and staff dimensions. So, probably a segmentation of a team's fan population based on their age can indicate the overall importance of these dimensions for each team.

## **6. Limitations and suggestions for future research**

This study extends our knowledge regarding the importance of two service dimensions, facilities and staff, for sport spectators. However, it also has limitations. First, it is difficult to generalise its findings in other countries due to cultural differences and to the different level of development of football facilities and the sport entertainment industry generally. Second, only two service dimensions were investigated and a convenience sample was used that was not fully representative of football fans in Greece. Third, only one sport was investigated. Future research can validate these results with a wider, random sample; extend the study to other sports and other service dimensions such as processes; and do multi-industry or multi-country studies.

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