





## Managerial behavior of sports facilities managers: an approach with public and non-profit organizations in São Paulo

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**Abstract - Aim:** The sports facilities development and use optimization has been one of the main objectives of sports organizations. To understand how the management is performed, the knowledge about the manager and his function is crucial and may aid to improve facilities management and impact service quality. This study aimed to analyze the functional profile of sport facilities managers and verify their managerial behavior. **Methods:** A survey was conducted, 76 managers of public and non-profit sports facilities of São Paulo answering a questionnaire regarding their personal data and tasks performed in five related areas (Economic-Administrative Management, Human Resources Management, Maintenance, Supply and Exploration, and Marketing and Promotion). The data was analyzed through an Exploratory Factorial Analysis using the principal component method. **Results:** The low participation of managers in tasks related to the Economic-Administrative Management area was identified. The manager's other areas of activity had their tasks divided into the following factors: Human Resources (Work organization; Communication and Training); Maintenance (Maintenance and monitoring; Expansion, Construction, and Renovation); Supply and Exploration (Activities Organization; Activity Planning for Groups; Assignment and organization of use); Marketing (Communication, supply and demand analysis; Operation and occupation analysis). **Conclusion:** There is no standard managerial behavior of sport facilities managers since their performance is not focused on the proactive or non-proactive characteristic of the task, but rather on the field that the organization and/or manager deems necessary to be planned and developed.

**Keywords:** sports facilities, managerial behavior, proactivity, performance, sports manager.

### Introduction

Some studies have related the level of population physical activity with the sports facility location, indicating that places closer to the physical and sports facilities have a more active population<sup>1-7</sup>. The sports facilities development and optimization of their use have been one of the main objectives of sports organizations in order to reach the goals concerning the sport, in particular the one of increasing the access contemplating the practices diversity<sup>8-10</sup>.

Therefore, places for sports practice need adequate management, from the construction of the new space to the sports facilities maintenance, in order to ensure the facility operation in a financially and environmentally healthy way<sup>10</sup>. There are proposals of management models with differentiated focus<sup>10-16</sup>. However, the common denominator is the role played by the facility manager, mainly concerning the leadership and proactivity<sup>12,17</sup>, and the use of methods that assist in the facility's management<sup>13</sup>. The sports facilities management should not be

restricted to the passive structure maintenance function, mainly because people are interested in spend time and money on experiences in them, whether as a spectator of an event or practitioner of physical activity<sup>18</sup>.

Despite the existence of different sports facilities, according to Brauer<sup>17</sup>, the sports facilities manager should not be a caretaker of the facility, but a space transformation agent that gathers information and knowledge from the various areas in an effort to coordinate all workers involved in the facility management, in order to obtain the best possible results. Since management has become more dynamic and participatory, proactivity has become one of the determining factors in the organization's success, and perceptions of leadership effectiveness have also come to be associated with proactive behavior<sup>19</sup>.

Proactivity is described as taking the initiative to improve current circumstances or create new circumstances<sup>19,20</sup>. This implies challenging the status quo instead of passively adapting to current conditions and circumstances<sup>19</sup>. The term reactive is an antonym for proactive, creating a reactive and proactive dichotomy<sup>20</sup>.

In terms of sport, according to Ratten<sup>21</sup>, management techniques have made sports organizations more proactive lately, helping them to guarantee their recognition. The change from a reactive position to a proactive one is being perceived and this new positioning gives managers greater possibility of facilities sustainability, as well as keeping all management more prepared for possible misadventure and changes that may occur in the scenario in which they are inserted<sup>17</sup>.

The International Facility Management Association considers that the facility manager needs to understand several distinct functions, such as financial planning, maintenance systems management, knowledge in architectural and structural planning, knowledge to manage the phases of facility construction and renovation<sup>11</sup>. The decisions that the sports facility manager must take in order to ensure the operation and better use of space must be made based on the knowledge that this manager has about politics, sports, management, equipment maintenance, logistics, economics, among others<sup>22</sup>. This professional can be asked to assist in the process of new spaces construction, participating in an interdisciplinary group (consisting of engineers, architects, designers, builders, and sporting professionals), in order to make consultancy. His knowledge about sports practice, space adaptation according to the rules of the sport that will be practiced in the facilities, adequacy of the technical requirements (so that competitions can be carried out or not), the indication of materials and suppliers to be used are some examples.

Some studies describe and discuss this occupation in different countries at a contemporary management practice<sup>6,8,9,12,23-26</sup>. However, the knowledge about the professional that performs this function in other realities outside Europe and North America context is still little explored. Countries such as China, Brazil, India, and Russia received prominent sporting events and these professionals started to play an important role in the sustainable sport facilities management in these countries, that is, that the sports facility has healthy financial management and can be perpetuated in the sports scene<sup>12</sup>. In the developing economic context, with large socioeconomic differences and after hosting mega-sport events, how do these professionals act? In what areas are they responsible? What is your educational degree?

Despite this, in Brazil, there is an increased discussion about these professionals and even about sport facilities management. However, the sports facilities manager is not supported by the legislation and they don't have opportunities for specialized education and training in the country<sup>27,28</sup>. Considering the lack of knowledge about this position and the professional training, it is important to understand the context of Brazilian sports facilities managers. This is a context shared with other countries in Latin America and the Middle East, where sport management is still expanding with regard to its professionalization and research development<sup>29</sup>.

Therefore, this study aimed to analyze the functional profile of sport facilities managers in Brazil and characterize their managerial behavior. Taking into account their sociodemographic characteristics, training, and tasks that this professional performs in his work, we can verify the character of these tasks and if it acts more at the managerial level or operational tasks.

## Methods

This research has a quantitative approach and is characterized as exploratory and descriptive, through field research using a Survey method<sup>30</sup>.

### Sample

The sports facility manager was considered the one that has the greatest facility responsibility, makes the decisions, and must account for its operation. The sample was obtained for convenience, from 150 contacts (telephone and e-mail) with sport facilities managers, that work in sports facilities that have sports practice and host competitions, like municipal sports facilities, clubs sports facilities, and private non-profit sports facilities located in the state of São Paulo, Brazil. University and college sports facility and gyms managers were not included in the sample because they have different levels and objectives in their management, that is, facilities with very specific management and usage characteristics.

It was obtain the return of 97 managers, who accessed the questionnaire. The final sample consisted of 76 managers who answered all or part of the research questionnaire (62 male and 14 female). The participant's ages are distributed as shown in [Table 1](#) and the sport facility types that this manager administrated is described in [Table 2](#).

Some managers have a specialization or higher education level (27/40.78%), few have masters and/or Ph.D. degrees (14/18.42%), and others have only technical, high, or elementary school levels (35/46.05%). 52 participants

**Table 1** - Age distribution of sport managers.

Age range	Percentage
Above 29 years old	11.5%
30 to 39 years old	25.6%
40 to 49 years old	20.5%
50 to 59 years old	34.6%
Over 60 years old	7.7%

**Table 2** - Sport facility model that managers administrated.

Sport facility model	Number
Public - Municipal level	52
Private non-profit - Clubs	16
Private non-profit - Third Sector	8

work in public sports facilities and 24 in private non-profit sports facilities. The majority of the participants declared to have taken the position through indication (45 managers), 19 through promotion or internal recruitment, and 9 through external recruitment.

### *Instrument*

A questionnaire composed of two sections of closed questions was applied. Section 1 addressed the manager profile (identification, sociodemographic data, and education level). Section 2 covered the tasks performed by sports facilities managers through the perceptions of managers themselves in five distinct areas of facility management, some traditional (Economic-Administrative Management, Human Resources, and Marketing and Promotion) and others that cover activities characteristics of this occupation type (Maintenance and Supply and Exploration), based on the instrument developed by Peiró, et al.<sup>23</sup>.

This questionnaire was developed based on a series of focus groups with experts in sport and task inventory techniques<sup>23</sup>. The authors use the questionnaire in some previous studies addressing Spanish sports facilities managers<sup>24,31,32</sup>, going through discussions and modifications, until reaching the final version.

Tasks are classified within each assigned area having the character of a reactive task (one that pertains to the management routine) or a proactive task (one that goes beyond what is strictly necessary and supposes a future perspective) following the classification proposed by the questionnaire authors<sup>23</sup>. Each area is composed of, on average, 10 questions, thus the instrument was composed of 54 questions.

The questionnaire was cross-culturally adapted for use in the Brazilian context by Amaral and Bastos<sup>33</sup>, following the transcultural adaptation process translation, synthesis, back translation, review by a committee of experts, and pre-test<sup>34,35</sup>.

### *Procedures and data collection*

The questionnaire application was carried out in 2014 (February to June), available online after telephone/e-mail contact with the facility manager with the invitation to participate in the survey or personally with a questionnaire in the printed version after invitation sent by e-mail. The ethics procedures were submitted and approved by Research Ethics Committee - CAAE nº 04864112.8.0000.5391.

The participants were asked to respond to Section 1, regarding their personal data, and in Section 2 they have to indicate, in relation to each of the aspects that were presented to them through the questionnaire. The frequency with which the aforementioned events occur in the organization in which they work, according to the following Likert scale: 1) the frequency is much less than necessary, 2) the frequency is less than necessary, 3) the frequency is

as often as necessary, 4) the frequency is more than the necessary 5) the frequency is much more than necessary.

The answers were constructed in such a way as to relativize the question in relation to the others since it is an intention to understand if certain tasks are performed less frequently, not by their periodicity, but rather if they are performed with the frequency that is necessary<sup>19</sup>.

### *Data analysis*

The data obtained in the field survey for Session 1 of the questionnaire were used in the characterization of the sample through descriptive statistics using the program Microsoft Excel version 2013. For the data referring to Session 2 of the questionnaire (frequency of accomplishment of the tasks in the Likert scale), an Exploratory Factor Analysis (EFA) was conducted using the principal component method for each of the five areas separately, in order to verify the covariance between variables in an attempt to find sets of factors that express what the original variables have in common<sup>36</sup>. In this case, to verify if there are factors that concentrate the tasks of reactive character and those of a proactive character for the variables related to the tasks performed by the managers.

A factorial analysis was conducted for each of the areas because the number of participants in the study restricted the performance of a single factorial analysis for all variables in the five areas, and in the format realized it was possible to fulfill the minimum of 5 respondents for each item that composes the instrument<sup>36</sup>. For this analysis, the SPSS for Windows program version 20.0 was used.

Missing data analysis was performed for each of the 5 separate areas to make feasible the EFA. Initially, variables with indices greater than 40% of missing data were excluded. Subsequently, cases (participants) with indices greater than 40% of missing data were excluded. After analyzing missing data of the variables of each area separately, it was identified that the Economic-Administrative Management area has all variables with data indices above 40%, that is, they were not satisfactory for the conduction of EFA. These indices can be verified in [Table 3](#) by adding the frequencies of answers to 'not performed' added to the participants who did not respond. The task that has the highest response rate presents 45.3% of missing data.

In order to proceed with the missing data imputation for the other areas, the Test-t was performed to verify the randomness of the missing data processes, that is, if the absence of data occurred completely randomly (MCAR - Missing Completely At Random) or random (MAR - Missing At Random). The test-t showed values above 2.0, which characterizes the absence of data as random (MAR - Missing At Random). It was then chosen by the method of data imputation (substitution) by the mean (MS), being one of the most suitable for the type of missing data verified (29). Since data from a Likert scale were used, it was decided not to carry out analysis of atypical observations,

**Table 3** - Percentage of frequency of accomplishment of the tasks of the area of Economic-Administrative Management.

Task	Perform	Not perform	Not answer
Budgeting	54.7%	41.3%	4.0%
Elaboration of extraordinary budgets	36.0%	60.0%	4.0%
Monitoring or budget control	53.5%	40.0%	6.7%
Balance and Inventories	40.0%	54.7%	5.3%
Preparation of financial report	30.7%	64.0%	5.3%
Control of benefits and social security	29.3%	65.3%	5.3%
Collection management	24.0%	69.3%	6.7%
Elaboration of an investment plan*	34.7%	61.3%	4.0%
Control and monitoring of the investment plan	36.0%	60.0%	4.0%
Tax Control (taxation, taxes, legal entity)	21.3%	72.0%	6.7%
Monitoring of administrative efficiency	57.3%	36.0%	6.7%
Activities to attract extraordinary financial resources	34.7%	60.0%	5.3%
Control of financing*	16.0%	80.0%	4.0%

The variables indicated by an asterisk are those that have a proactive character.

since the answers were within the range 1 to 5 established for this type of measurement scale.

To ensure that factor analysis was recommended, it was chosen to verify the correlation of the variables with each other and if these were sufficient to produce representative factors. The Kaiser-Meyer-Olkin (KMO) indexes were calculated and the values of the sphericity tests (Bartlett test) were checked for the sets of variables referring to Human Resources Management, Maintenance, Supply and Exploration, and Marketing and Promotion, all of which prove to be adequate to proceed with the factorial analysis. For KMO, values above 0.5 were considered adequate. The Bartlett sphericity test indicates that there is a correlation between the variables when  $p < 0.05$ <sup>36</sup>.

The EFA was performed using the principal components method followed by a VARIMAX rotation (to transform the factors in order to make them more interpretable). Since these methods of factor extraction and matrix rotation are the most used by researchers and are available in most statistical programs, besides being recommended for the type of data obtained<sup>36</sup>. The number of factors obtained was those whose eigenvalues were greater than or equal to 1. The variables with factorial loads and communality above 0.5 were considered as belonging to a factor because the factorial load indicates the importance of the load in the interpretation of the factor and the communality indicates the shared or common variance between the variables<sup>36</sup>.

For all factors extracted from the 4 areas analyzed, the internal consistencies were calculated to gauge the accuracy of the measure of each of the area factors. For this, the Cronbach's Alpha calculation was used, considered as satisfactory indexes above 0.60<sup>36</sup>.

## Results

For Human Resources Management, the analysis of missing data revealed that 6 variables did not have satisfactory indexes for conducting the factorial analysis. The excluded variables were related to procedures for selection and hiring of people appointment of persons to positions and labor relations, 'Basic and complementary compensation plans and career development planning. The analysis of missing data was also performed by cases. In this process, 32 observations with more than 40% of missing data were excluded, the remaining 44 observations for this analysis.

For the remaining 7 variables, the communality was calculated, and in this process, a variable ('Planned channels for complaints') was excluded because it presented an unsatisfactory index (communality below 0.5). In the 6 variables that showed satisfactory communality, the KMO was calculated and the Bartlett test was performed, both satisfactory for the continuity of the EFA, which, after being carried out, revealed the extraction of two factors for the set of variables. The variables included in each of the factors and their factorial loads can be visualized in Table 4 (the variables indicated by an asterisk are those that have a proactive character).

The factor 1 'Work Organization' has 4 variables (3 of reactive characteristic and 1 of proactive characteristic) and explains 46.5% of the variance of the model with Cronbach's Alpha of 0.864. The factor 2 'Communication and Training' has 2 variables (1 of reactive characteristic and 1 of proactive characteristic), explains 33.04% of the model, and presents Cronbach's Alpha of 0.738. Both factors have satisfactory Cronbach's Alpha indices and together account for 79.54% of the model.

The analysis of missing data for the Maintenance area revealed that all variables had a satisfactory percentage of data. All variables also presented communality within the indicated in the literature, not excluding any variables. Regarding the observations, 22 cases were classified as not adequate because they had more than 40% of missing data, remaining 54 observations to proceed with the analysis, which was performed after also verifying KMO and the level of significance for the Bartlett Test (both with values above the minimum required).

The two factors extracted from the factorial analysis can be seen in Table 5 as well as factorial loads of each variable, an explained variance and the Cronbach's Alpha of each factor. The factor 1 'Maintenance and monitoring', consisting of 6 variables (5 of reactive characteristic and 1

**Table 4** - Key components analysis: Human Resources Management.

Items/variables of the questionnaire	Factor 1 - Work organization	Fator 2 - Communication and training
Provisions for sanctions	0.947	-0.051
Temporary work planning: schedules, shifts	0.833	0.251
Description of jobs*	0.772	0.468
Size of staff / collaborators	0.720	0.427
Plans or programs for qualification and personal training*	0.102	0.881
Channels established for personal communication with the directors	0.273	0.859
KMO = 0.526		
Percentage of variance explained	46.50	33.04
Cronbach's Alpha	0.864	0.738

\*The variables indicated by an asterisk are those that have a proactive character.

The gray highlight indicates the major factorial load of each variable and to which factor it belongs.

**Table 5** - Key components analysis: Maintenance.

Items/variables of the questionnaire	Factor 1 - Maintenance and monitoring	Factor 2 - Expansion, construction and renovation
Distribution of activities among maintenance staff/employees	0.866	0.224
Monitoring and control of the condition of the facilities	0.823	0.392
Control and supervision of maintenance interventions	0.810	0.257
Care and maintenance of spaces and/or services	0.804	0.085
Planning maintenance activities*	0.712	0.456
Remodeling of facilities (painting...)	0.695	0.353
Renovation of sports equipment*	0.256	0.812
Expansion of existing facilities*	0.148	0.783
Construction of new spaces and services*	0.323	0.738
KMO = 0.647		
Percentage of variance explained	43.47	26.94
Cronbach's Alpha	0.915	0.753

\*The variables indicated by an asterisk are those that have a proactive character.

The gray highlight indicates the major factorial load of each variable and to which factor it belongs.

of proactive characteristic), explains 43.47% of the total variance of the model and has Cronbach's Alpha of 0.915. Factor 2 'Expansion, Construction, and Renovation' has three variables (all of them with a proactive characteristic), explains 26.94% of the total variance, and has Cronbach's Alpha of 0.753, the two factors being responsible for explaining together 70.41% of the total variance of the construct.

Analysis of missing data for the Supply and Exploration area indicated that all variables had a satisfactory percentage of data. For the participants, only 12 were excluded from the analysis because they presented more than 40% of missing data. The communality found for all variables was within the indicated in the literature, so no variables for the EFA were excluded. The analysis was conducted after the KMO and the level of significance for the Bartlett Test were calculated.

The factor analysis for the set of variables that make up the Supply and Exploration area extracted 3

factors (Table 6). The factor 1 'Organization of Activities' consists of 5 variables (3 of reactive characteristic and 1 of proactive characteristic), explains 33.32% of the total variance of the model, and has Cronbach's Alpha of 0.763. In this fact it is possible to observe that the variable 'Organization of championships and regular tournaments' has a factorial load higher than 0.5 in two factors (1 and 3).

The factor 2 'Activity Planning for Groups', formed by 2 variables (1 of reactive characteristic and 1 of proactive characteristic), showed a percentage of variance equal to 19.39 and Cronbach's Alpha of 0.716. The factor 3 'Assignment and Organization of the use' is formed by 2 variables (1 of reactive characteristic and 1 of proactive characteristic), explains 17.48% of the total variance, and has Cronbach's Alpha 0.466, below the value considered satisfactory with regard to the internal consistency of this factor. The 3 factors together explain 70.19% of the total variance of the construct.



**Table 6** - Key components analysis: Supply and Exploration.

Items/variables of the questionnaire	Factor 1 - Organization of activities	Factor 2 - Activity planning for groups	Factor 3 - Assignment and organization of use
Agreement with public institutions on the provision of certain services and activities	0.752	0.040	-0.314
Organization of occasional sporting events	0.729	0.181	0.362
Presence of monitors and trainers	0.710	0.344	0.021
Activities of planning, regulation and coordination of the use of sports facilities	0.694	0.248	0.117
Agreement of use with user groups or collective use agreement	0.112	0.951	0.075
Planned sports training activities (lessons, trainings)	0.508	0.637	-0.007
Assignment of facility to clubs, associations or group of users	-0.091	0.113	0.890
Organization of regular tournaments and championships	0.552	-0.123	0.599
KMO = 0.644			
Percentage of variance explained	33.32	19.39	17.48
Cronbach's Alpha	0.763	0.716	0.466

The variables indicated by an asterisk are those that have a proactive character.

The gray highlight indicates the major factorial load of each variable and to which factor it belongs.

For the Marketing and Promotion area, the analysis of the missing data revealed that, of the 11 variables that comprised the area, 2 presented a percentage greater than 40% of absent data, being these variables excluded from the analysis ('Monitoring market possibilities for extending the offer' and 'Realization of sporting events for promotional purpose'). Also, 17 observations were excluded because they presented the same characteristic, remaining 59 observations to proceed with the analysis.

The communality of the variables was satisfactory, except for the variable 'Search activities and capture of new users', which presented a value below 0.5 and, therefore, were excluded from the analysis. After 8 variables

remained, the KMO and Bartlett's tests were proceeded, which presented satisfactory values indicating that it was possible to continue with the EFA.

From this analysis, we extracted 2 factors that together explain 68.73% of the total variance of the construct. The factor 1 'Communication, supply and demand analysis' consists of 5 variables (4 of reactive characteristic and 1 of proactive characteristic) and alone explains 42.08% of the variance of the model and has Cronbach's Alpha of 0.860. Factor 2 'Operation and occupation analysis' is formed by 3 variables (1 of proactive characteristic and 2 of reactive characteristic), explains 26.65%, and has Cronbach's Alpha of 0.718 (Table 7).

**Table 7** - Key components analysis: Marketing and Promotion.

Items / variables of the questionnaire	Factor 1 - Communication, supply and demand analysis	Factor 2 - Operation and occupation analysis
Study of the offer offered by other facilities	0.939	-0.117
Broadcasting through the media (radio, print media, TV ...)	0.890	0.208
Study of the needs and demands of users	0.728	0.303
Evaluation of the discrepancies between supply characteristics and demand needs	0.651	0.376
Agreements with user groups and associations to promote the use	0.569	0.427
Study of the operation of other facilities	-0.100	0.883
Dissemination through other means (email, posters, social networks, blogs, outdoors)	0.465	0.665
Monitoring the use of facilities and services	0.438	0.662
KMO = 0.736		
Percentage of variance explained	42.08	26.65
Cronbach's Alpha	0.860	0.718

The variables indicated by an asterisk are those that have a proactive character.

The gray highlight indicates the major factorial load of each variable and to which factor it belongs.

## Discussion

The results showed that sports facility managers do not have a standard behavior in their performances, that is, the manager's commitment does not seem to be related to the type of the task (reactive or proactive), but to the area to which the task belongs. We can verify in the factor analysis that the reactive and proactive tasks are mixed in the formed factors, indicating that it is not this character that determines the greater or lesser managers' involvement in that task, different from the results found by Peiró et al.<sup>23</sup>.

It can be observed that all the tasks of the area Economic-Administrative Management were excluded from this analysis, even those reactive and considered operational. The managers do not seem to be involved in this scope of management. Peiró et al.<sup>23</sup> found that the manager has a greater role in reactive tasks than the proactive ones (mainly planning), suggesting that although the Spanish manager is more involved with the financial management of the facility, it is still responsible for more operational tasks with regard to financial management. This result may in part have been influenced by the constitution of the sample, which has 52 public sector managers. According to Peiró et al.<sup>32</sup>, in the public sector, the manager usually has less autonomy in some areas, financial being one of them.

Regarding Human Resources Management, the exclusion of 7 variables from the analysis already presupposes low participation of the manager in these processes. From these excluded variables, 4 were reactive and 3 were proactive, once again confirming that the manager does not perform a task because he has more or less proactive character, but because a specific area is not his responsibility: the hiring process, for example. The information that managers do not perform so many tasks in areas like Economic-Administrative Management and Human Resources may be a reflection of the fact that the professionals are mostly indicated to the position in Brazilian reality, there being no specific training requirement to assume the manager position<sup>37</sup>. In addition, in a study conducted with managers of public and private facilities in Spain, Peiró et al.<sup>24</sup> found that involvement with Human Resources Management tasks is more latent for the private sector manager, and this area is also indicated by managers in general as the one that requires more attention in solving problems.

The two factors resulting from the Human Resources Management area indicates that the manager has more participation in tasks with 'Work Organization' characteristics (which relate to the organization of shifts, schedules, job description, and staff size) and which corresponds to the factor 1 of greatest impact in the construction of the model for the area of Human Resources Management. In addition, factor 2 (with a slightly smaller impact) is related

to 'Communication and Training', that is, tasks linked to the staff training and communication channels of the employees with the directors, pointed by Rettschlag and García<sup>38</sup> as one of the main components of human resources management. Therefore, a gap can be seen with tasks related to recruitment and selection. The hiring of personnel is closely related to the management model adopted by the sports facility, limiting the action of the management team, mainly in the public management models<sup>8,9</sup>.

In both factors, it is possible to find tasks of a reactive and proactive character, this second to a lesser degree. Differently from this result, the study of Peiró et al.<sup>23</sup>, found that tasks related to communication, compensation (salaries, promotions), and labor relations have (reactive characteristic), have a greater impact on the model construction for Human Resources Management, than the tasks of proactive characteristics such as career planning and development, training plans and job descriptions<sup>23</sup>.

In the Maintenance area, the analysis pointed to results closer to those obtained with the Spanish managers<sup>23</sup>, that is, a tendency for managers to participate more in reactive tasks nature than proactive. The analysis showed that factor 1 ('Maintenance and monitoring'), which has the greatest impact on the model construction for this area, presents us with a set of variables mainly reactive, while factor 2 ('Expansion, construction, and Renovation') consists only of proactive tasks. Maintenance and monitoring are priorities in the management of sports facilities<sup>31</sup>, which can generate organizational profits and social change for the surroundings, or even negative financial and image impacts on the community<sup>12</sup>.

It is possible to observe that factor 1, which is more representative in the construction of the model, refers to daily tasks, while factor 2 refers to tasks related to planning and strategy. According to Peiró et al.<sup>31</sup>, the long-term planning tasks related to the expansion and construction of new spaces are rarely performed by the facilities managers. This seems to be a trend also for the managers of this study, although the literature points out as necessary the manager participation in the entire process of designing a new space or new facility<sup>10,39,40</sup>.

For the Supply and Exploration area, also considered as a specific area of the sports facilities management, the results obtained in the factorial analysis follow the other areas' tendency, showing no behavior pattern of the managers with respect to the character of the tasks. It was observed that the proactive tasks are distributed in the three formed factors. The organization and planning of activities seem to be the set of tasks that most represents the model, followed by the tasks of planning for group activities. Factor 3, represented by the tasks relate to assignment and organization of use, besides being a variable that also has a significant factor load in factor 1 and has lower representativeness in the explanation percentage of the model, also presented an internal consistency index

(Cronbach's Alpha) below those indicated in the literature as satisfactory.

These results, considered together with the analysis of the frequencies for this area, give us the perception that the managers are very focused on the tasks that concern their users and carrying out activities to attract new users. Even in other segments of sports management, the sports manager has demonstrated great performance in the area of events and the organization of promotional activities<sup>41,42</sup>. This is a priority in the practice of the managers, to the detriment of providing the use of the facilities to other sports organizations (clubs, associations) or the use of facilities to hold larger championships, with the participation of other users/athletes.

The results of the factorial analysis for the area of Marketing and Promotion showed greater representativeness of the proactive tasks to detriment of the reactive tasks. Once again, that there is no standard for managerial behavior among the facilities managers that participated in the research. Peiró et al.<sup>23</sup> even raise the hypothesis that marketing in sports facilities depends on a lesser or greater orientation towards the profitability of the same, that is, the more profit-oriented the facility is, the more developed will be the marketing area.

However, the results show that even for a sample consisting of public and private non-profit facilities, which theoretically do not aim for profit, it is still possible to verify a proactive orientation in this area. The capture of new users and the promotion of the facility is highlighted in the constructed model, even though a proactive variable has been eliminated from the analysis due to missing data.

The results point out that more than oriented to one or another type of task (reactive or proactive), the manager is engaged in some fields more than others. The exception can be verified in the area of Maintenance that presented results that support the hypothesis that the manager is more committed to reactive tasks than in proactive tasks, and the area of Marketing and Promotion, where we find the opposite result, in other words, the manager is more committed to proactive tasks than to reactive tasks.

## Conclusion

This study aimed to analyze the functional profile of sport facilities managers in Brazil and characterize their managerial behavior and it can be concluded that the manager's performance areas (notably Human Resources Management, Maintenance, Supply and Exploration, and Marketing) present a differential when comparing the results with the other realities reported in the literature. The managers presented a little more engaged in proactive activities, however, it is important to highlight the low manager's participation in some tasks, such as economic-administrative management area.

Thus, there is no standard managerial behavior, since managers' performance is not focused on the proactive or non-proactive characteristic of the task, but rather on the field that the organization and/or managers deem necessary to be planned and developed. This behavior may be a reflection of a transition moment that the managers are going through (from a more reactive position to a position of more proactivity and participation in the facility's strategic decisions). It is expected that the manager engages more in these tasks since it is his role to manage, plan and organize the facility, delegating operational and routine tasks. As the literature and tendencies point out in relation to the organization's management (general and sports), professionals must begin to collaborate effectively in the planning and facilities strategy, as is expected from a professional of this hierarchical level.

The conclusions obtained in this study have some limitations, especially regarding the distinction of characteristics of the sports facilities participating in the study, access to managers, and consequent adherence's difficulty. In addition, some related to the method, such as difficulty in identifying the person responsible for the facility management and the analysis performed exclusively from the perception of the managers themselves.

This work contributes to understanding the function performance of the sports facilities managers and their possible application in the manager's training since the data show the need to invest in training these professionals. This is a very specific professional position, which may require specific training, as we see in other realities such as Europe and the United States, in which the academy presents and discusses the training of these professionals.

For a better accomplishment and execution of their functions, this study provides evidence that a training focus on strategic planning, strategic marketing, and human resources management (since the manager will lead a diverse team with a large number of professionals), can improve the manager's performance.

For future studies, we suggest the comparison of function performance between managers of the public and private sectors. Besides that, the correlations between the formation, ascension to the position, and time that occupies the position with an average of the frequencies of accomplishment of each one of the tasks. In addition, the understanding of sports facilities manager function in others contexts like Latin America and the Middle East, to compare and understand if this result is an effect of the maturity of the sports management area and its professionalization in these countries.

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